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Division II.

ANCIENT ARCHITECTURE IN SYRIA

BY

HOWARD CROSBY BUTLER

Division III. 3

GREEK AND LATIN INSCRIPTIONS IN SYRIA

BY

ENNO LITTMANN

Section A.
SOUTHERN SYRIA.

Part I.
AMMONITIS

LATE E. J. BRILL
PUBLISHERS AND PRINTERS
LEYDEN — 1907.

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IN

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Publications of the Princeton University Archaeological
Expedition to Syria, in 1904—1905.

Division III.

GREEK AND LATIN INSCRIPTIONS

Section A.

SOUTHERN SYRIA

BY

ENNO LITTMANN.

PART 1.

AMMONITIS

ʿARÂḲ IL-EMÎR ʿAMMÂN ḲALʿAT IZ-ZERḲÂ DJERASH

LATE E. J. BRILL
PUBLISHERS AND PRINTERS
LEYDEN — 1907.

General Preface to Division II.

This division of the publications of the Princeton University Archaeological Expedition to Syria is devoted primarily to architecture, and to sculpture, wall-painting and mosaic, so far as any remnants of these arts have been preserved in the country explored by the expedition. The territory visited has been divided, for convenience in publication, into two main sections, A, Southern Syria, and B, Northern Syria. The first section embraces parts of Ammonitis, the Ḥaurân, and the region south of it, and parts of the Ledjâ and the Jaulân. Section B comprises the region of basaltic geological formation that lies east of the high road, between Selemîyeh (east of Ḥamā) and Aleppo; besides two groups of hills in the limestone regions west of the high road, between it and the Orontes, and a third group between Antioch and Aleppo. Between the sections thus defined is a large territory comprising Coele Syria and the region of Damascus, which was not included in the explorations of the expedition, for the reasons that much of it is thickly populated and is devoid of monuments, and that the monuments which have survived, like those of Ba'albek, are already well known, and have been made the subject of the best scholarly research. This publication of the monuments of the architecture of Syria does not claim to be a complete corpus of the monuments, even for the regions outlined above. The expedition often refrained from visiting sites that had been thoroughly studied, and fully published, except for purposes of comparative examination. This division does not include buildings that have been published by M. Rey, the Marquis de Vogüé, the Count de Laborde, or by the American Expedition of 1899—1900, except in cases where there is something new to publish; nor does it include monuments in those places that have been recently visited by the Berlin Expedition, except in the instances of sites where that expedition spent a very short time, and where the Princeton Expedition was able to stop for a considerable period. It could be seen, for instance, from Professor Puchstein's report¹ that the German expedition had worked but a few hours at 'Arâḳ il-Emîr, a single day at 'Ammân, and two days at Bosra; and our Expedition worked at these places from one to two weeks, so that these publications are likely to contain little that duplicates the work of others. The aim of the American Expedition had been to cover as great an area as possible, to make a general report on the monuments of the whole region, and to classify those monuments geographically and chronologically. For this purpose photographs and groundplans were used as the chief means of illustration. The aim of the Princeton Expedition was to take up certain important sites and groups of less important ruins,

¹ „Ba'albek, II" in *Jahrbuch des Kaiserlich Deutschen Archäologischen Instituts*, Otto Puchstein, Bruno Schultz, Daniel Krencker und Heinrich Kohl, Band XVII, 1902, pp. 106—108.

and to study them more in detail; and these publications present a great body of monuments (some of them from localities visited by the American Expedition, but the great majority from outlying and hitherto unvisited sites) in measured ground-plans, sections, and scale drawings of details, and, in many cases, in restorations or tentative schemes for restoration. Many of the monuments in the South are in places that have been visited by M. Dussaud¹, or other epigraphical scholars; and some of those in the basaltic region of the North were found in sites that have been recorded by the Baron von Oppenheim², but no systematic study of these buildings has ever been made. A church at Kaşr Ibn Wardân, for instance, was published by Professor Strzygowski³ by means of photographs taken by the Baron von Oppenheim, and a very clever plan drawn from the photographs; but the actual measurements of the church and of the remarkable buildings near it were not known. In both of these localities, however, a number of sites, of greater or less importance, were actually discovered; but in the extreme northern region, in the mountains between Antioch and Aleppo, a large number of sites were found that were hitherto entirely unknown, and most of these were of more than usual interest.

The value of exploration in these practically unknown parts of Syria, and the interest in extending research further into the still unknown regions there, lies primarily in the fact that whatever of ancient architecture these regions preserve, is exposed for study with only occasional need of excavations, and that here, perhaps more than in any country where archaeological research has been pursued, the ruins have been untouched by man, so far as rebuilding is concerned, for more than twelve hundred years. Wherever civilized man has lived the buildings of the ancients have been destroyed or rebuilt to such an extent that it is well nigh impossible to restore the ancient edifices, or to distinguish between the ancient and the more modern. This is particularly true of Christian architecture in countries where the church flourished during the middle ages, or well into the middle ages. In Asia Minor, for instance, where there is that wonderful array of churches, recently brought to the attention of archaeologists by Professor Strzygowski, in his remarkable work, *Klein-Asien*³, and by Miss Gertrude Lowthian Bell in a series of excellent articles in the *Revue Archéologique*⁴, it is almost impossible, for lack of dated inscriptions, to determine definitely whether a church belongs to the fourth century or to the ninth; while in Central Syria there are at best only three centuries to choose from in the dating of churches. And then the enormous number of dated monuments offered by Syria, the definite information given by inscriptions regarding the dates of buildings of all kinds, religious, civil, domestic and funerary, and making archaeological controversy impossible so far as chronology is concerned, attracts the explorer to the desert lands beyond Jordan and the Orontes. When the built and the written monuments can be studied together, when epigraphy contributes something to the history of art, and architecture illustrates inscriptions, the explorer feels a sense of security about his work on the one side, and is restrained from extravagant play of imagination, and the rampant exercise of theory on the other.

In the field of Roman architectural history Syria holds much that is of more than

¹ *Mission dans les régions désertiques de la Syrie moyenne*, René Dussaud et Frédéric Macler, Paris 1903.

² „Bericht“ *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, Max Frhr. v. Oppenheim, Band XXXVI, 1901, pp. 69—99.

³ *Klein-Asien, ein Neuland der Kunstgeschichte*, Josef Strzygowski, Leipzig 1903, pp. 121—128.

⁴ *Revue Archéologique*, 1906, I pp. 1—29, II pp. 7—36, 388—414.

passing importance. Roman architects in these Asiatic provinces, or perhaps better, Syrian architects under Roman sway, were far freer in their handling of the art of the period than were the Imperial architects of the Capital. They treated the classic orders with a freedom more like that shown in the architecture of the Renaissance, and employed Roman construction and classic ornament in ways that were not dreamed of in Italy before the sixteenth century. We meet European critics who characterize the architecture of the Roman period in Syria as debased, and indeed there are monuments that merit such criticism; but, on the other hand, we find delicate bits of decorative details in Syria that are fully as refined as the best work of the period in Rome. And there are in this Syrian architecture under Roman rule, examples of clever adjustment of ornamental details to the exigences of construction that far surpass anything of the same sort found in Rome. The employment of a major and a minor order, or the use of orders on three different scales, as exemplified in such buildings as the Propylaea of Gerasa and Philadelphia, the application of the classic entablature to an archivolt, which seems to have originated in Syria, the superposition of niches adorned with colonettes and entablatures, the breaking of pediments, the combining of curved with right-lined surfaces, all manifest greater skill in the manipulation of architectural details than is shown in any extant Roman buildings in Europe. These effects may be beautiful or not, according to the taste of the critic, but they are not debased, except in the sense that all Roman architecture is a debasement of Greek; for they show inventive genius, active talent, and no tendency to servile reproduction of pre-existing forms. There are other critics who are prone to judge the architecture of the Roman period, as if the monuments in Italy and in Southern France were the only existing examples of their time, who take the concrete cross-vaults of the Baths of Caracalla, and the stone tunnel-vaults of the Temple of Diana at Nimes, as the crowning works of Roman vaulting, and omit from their discussions the cross-vaults built of dressed stone without mortar, that builders of the Roman period constructed in Syria. M. Choisy¹ gives a diagram, and a very brief description of the Roman dome, set on pendentives and built entirely of dressed stone laid dry, that is to be seen in the baths at Djerash. He recognizes in it a forerunner of the Byzantine dome; but this is only one of the many monuments in Syria which show what complete mastery the Syrian builders of the time had attained in stone vaulting and in stereotomy.

Classical architecture had flourished in Syria much longer than in Rome; it had known three centuries of development in the hands of Oriental master builders, and it is probable that the Romans learned much from the buildings of Xenainos, the architect of Antioch under Seleukos Nikator, and from the work of Ptolemy's architects at Philadelphia, after their conquest of Syria. Trajan's great architect, Apollodoros, came from Damascus, and I have no doubt that Syria contributed as much to Rome in architecture as she did in religious cults. Syria may be regarded as one of the sources of Roman architecture, and it may be assumed that the architecture of the Roman period, in Syria itself, kept in advance of the art in Rome because of the advantage in its point of departure.

It is a great pity that so little remains of the Hellenistic architecture of the Seleukid kingdom in Syria, that Antioch has been so completely annihilated, and that

¹ *L'Art de bâtir chez les Byzantins*, A. Choisy, Paris, 1883. pp. 88—90, figg. 104, 105, Pl. XV.

the other Greek cities of Syria were so thoroughly altered during the Roman era. The only building of the period, the great structure at 'Arâk il-Emîr, is infused with elements that are not Hellenistic, and it can not be regarded as representative of the architecture of its time in other parts of Syria. But there are remains of pre-Roman, though not Hellenistic, architecture in Syria that offer a comparatively new field to the student of architectural history. I refer to that remarkable style which may be called Nabataean, that was discovered by M. de Vogüé, in the temples of Sîf and Suwêdâ. The southern parts of the Haurân are thickly strewn with the remains of this civilization. Sîf and Suwêdâ remain the most important sites for the study of these remains, but there are many other places where there are fragmentary remains, in inscriptions and in architectural details, of temples built in that peculiar style which borrowed little from classic art, and represents a distinct racial, if not national, life, and which is Oriental in sentiment and in expression. It is in this field, and in that of the Christian architecture of the North, that Syria contributes most that is new and individual in the history of art. As builders, the Nabataeans were unrivalled in the art of stone-cutting and dressing; as architects they showed extraordinary ability in planning large schemes, in arranging masses and in accommodating buildings or groups of structures to given sites. Their ornament was rich yet reserved, admirably adapted to the material in hand (the hard black basalt), and, in most instances, entirely free from the neighboring influences of the time. Their architecture constitutes a style by itself, a style which strongly influenced the succeeding styles of the Roman and Christian periods in Syria, not only in principles of construction, but in the forms of ornamental details.

At the opposite extremity of Central Syria, and at the other end of the period during which architecture may be said to have flourished in Syria, is the Christian architecture of the North, so magnificently commended to the notice of European scholars in the great work of the Marquis de Vogüé¹. Here again we have a distinct and individual style, which at every point, save that of domical construction, surpassed all the styles of architecture developed by the early Church. During 250 years, from the middle of the fourth century to the beginning of the seventh, the Christian architects of Northern Syria evolved a system of architecture which, in point of diversity of plan, in the disposition of masses, and in the treatment of details, excelled all contemporary schools; and they applied it to every form of building, religious, civil, funerary and domestic. Like the Byzantine and the Roman architecture of Europe, this style had its roots in the Hellenistic architecture of Greece and Rome; but, in the hands of Oriental builders, it expanded into a system which, in elasticity of application and in exuberance of decorative features, knew no rival until 500 years after its death, when the Gothic architecture of Northern Europe came into being.

Although these two styles, the Nabataean of the South, and the early Christian of Northern Syria, present the most important monuments for the history of architecture in Syria, and will fill a considerable space in these publications, the Princeton Expedition made a point of examining the monuments of all the pre-Islamic periods of architecture in the regions which it explored. These are presented in the following fascicules in the manner described above. The monuments now to be published embrace practically every building, in the places visited by the expedition, that is earlier than the Hegira,

¹) *La Syrie Centrale, Architecture Civile et Religieuse*, Count Melchior de Vogüé. Paris 1865.

and that preserves enough of its original structure in situ to warrant the taking of measurements. A small number of Christian buildings erected under the Kalifs, and a few mosques complete the series. Beside the monuments of 'Arâk il-Emîr, 'Ammân, Bosra, Umm idj-Djimâl and Sîf, which are published *in extenso*, these two sections include measured plans, accompanied in many cases by scale drawings of details and restorations, of 2 stepped pyramids, 11 temples, 87 churches, 12 convents, or groups of ecclesiastical buildings, 52 houses, 8 villas, 2 palaces, 16 towers, 12 tombs, 3 stables, 9 fortresses, or camps, 4 bridges and 2 mosques, besides 9 buildings of unknown purpose and numerous drawings of scattered details.

Again I have the pleasure of expressing my gratitude to the Ottoman Government for the privileges granted to me in the carrying out of my work, and for the uniform consideration of its representatives. And it is a particular pleasure to acknowledge the unfailing support and sympathy of His Excellency O. Hamdy Bey, Director General of the Imperial Ottoman Museum. To the Honorable John G. A. Leishman, American Ambassador to the Turkish Empire, and the members of our Embassy in Constantinople, I am personally indebted for many kindnesses, as also to the late Mr. Richards, His Britannic Majesty's consul at Damascus, during our stay in Syria; to Mr. Nasif Mshaka, American vice-Consul at Damascus; to M. Michel Siouffi of Damascus; and to the Messrs. Poché of Aleppo. I wish also to mention the services of our dragoman, George D. Cavalcanty, whose assistance in the work of photography was a great benefit to my work.





















HOWARD CROSBY BUTLER.

Abbreviations of Periodicals and Publications Frequently Mentioned.

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|--|--|
| A. A. E. S. <i>Publications of an American Archaeological Expedition to Syria in 1899—1900</i> , I, II, III, IV. | M. S. M. Dussaud and Macler; <i>Mission dans les régions désertiques de la Syrie moyenne</i> . |
| A. J. A. <i>American Journal of Archaeology</i> . | P. A. Brünnow; <i>Provincia Arabia</i> . |
| C. I. G. <i>Corpus Inscriptionum Graecarum</i> . | P. M. Guy le Strange; <i>Palestine under the Moslems</i> . |
| C. I. L. <i>Corpus Inscriptionum Latinarum</i> . | P. R. G. S. <i>Proceedings of the Royal Geographical Society</i> . |
| C. I. S. <i>Corpus Inscriptionum Semiticarum</i> . | Q. S. <i>Quarterly Statement of the Palestine Exploration Fund</i> . |
| S. C. Marquis de Vogüé; <i>La Syrie Centrale, Architecture Civile et Religieuse</i> . | R. A. <i>Revue Archéologique</i> . |
| H. <i>Hermes</i> . | R. A. O. <i>Recueil d'Archéologie Orientale</i> . |
| J. A. <i>Journal Asiatique</i> . | R. B. <i>Revue Biblique</i> . |
| J. K. D. A. I. <i>Jahrbuch des Kaiserlich Deutschen Archäologischen Instituts</i> . | S. E. P. Conder; <i>Survey of Eastern Palestine</i> . |
| J. K. P. K. <i>Jahrbuch der Königlich Preussischen Kunstsammlungen</i> . | V. A. S. Dussaud; <i>Voyage Archéologique au Sifâ</i> . |
| K. A. Strzygowski; <i>Klein-Asien, ein Neuland der Kunstgeschichte</i> . | Z. G. E. <i>Zeitschrift der Gesellschaft für Erdkunde zu Berlin</i> . |
| M. N. D. P. V. <i>Mittheilungen und Nachrichten des Deutschen Palästina-Vereins</i> . | Z. D. M. G. <i>Zeitschrift der Deutschen Morgenländischen Gesellschaft</i> . |
| | Z. D. P. V. <i>Zeitschrift des Deutschen Palästina-Vereins</i> . |

Explanation of Ground Plans.

SCALE: 0.0025 M. = 1 M. except when otherwise indicated on the plan.

	Walls standing to a height of 2 M. or more.		Arch in situ.
	Fallen walls, or foundations.		Arch fallen.
	" " material in situ.		Conjectured arch.
	Foundations only in situ, or top of low wall.		Opening high in standing wall.
	Conjectured walls.		" " fallen "
	Column standing to height of 2 M. or more.		Pavement.
	" " " " " less than 2 M.		Tunnel-vault.
	Conjectured column.		Cross-vault.
	Columns and architrave in situ.		Cistern.
	Columns and arch in situ.		
	Bases in situ, arch fallen.		

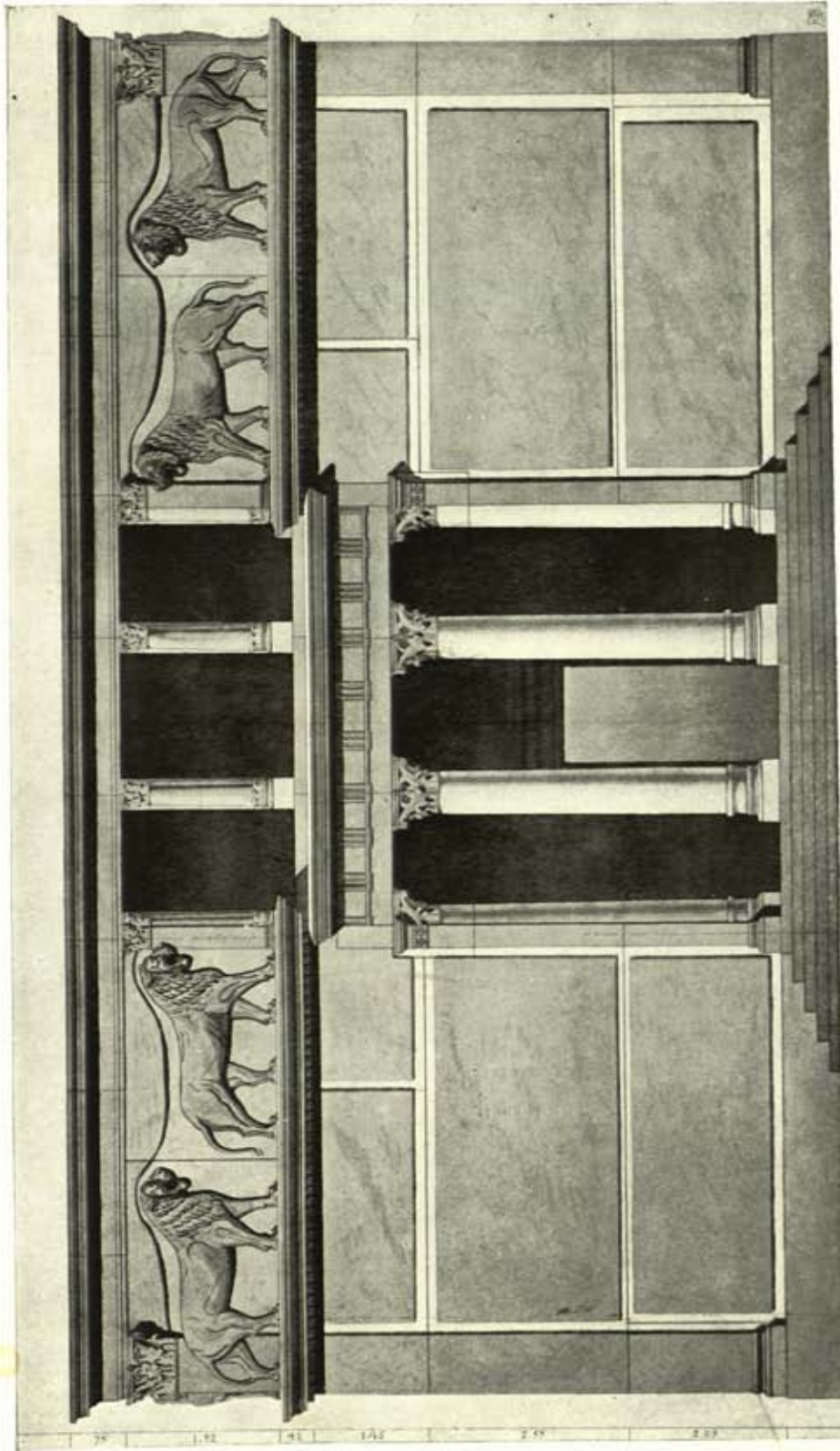
Explanation of Elevations and Sections.

SCALE: 0.005 M. = 1 M. except when otherwise indicated in the drawings.

	Conjectured.		Limestone.
	Basalt.		Brick.

SCALE OF DETAILS: 5 cm. = 1 M. except when some other scale is given in drawing.

NOTE. It has not been possible to carry the above scheme into effect with absolute consistency; but it has been applied in a large majority of the drawings. Departures from the scheme are made clear by the text.



'ARÂK ILE-MÎR. "KAŞR IL-'ABD."

NORTH PORCH. RESTORED.

Publications of the Princeton University Archaeological
Expedition to Syria.

Division II.

ANCIENT
ARCHITECTURE
IN
SYRIA

Section A.
SOUTHERN SYRIA.

PART 1.

AMMONITIS

- | |
|---|
| <ol style="list-style-type: none">1. 'ARÂḲ IL-EMÎR2. KHIRBIT IL-BARDHÔN3. MU'ALLAḲAH4. KHIRBIT ŞÂR5. 'AMMAN |
|---|

Preface to Division II, Section A.

The report upon the monuments of architecture examined in Southern Syria by the Princeton Expedition, which is the subject of this, the first section of Division II of these publications, includes monuments in Ammonitis and in the Ḥaurân. In Ammonitis two important sites, ʿArâḵ il-Emîr and ʿAmmân, were studied, and a small number of less significant ruins. In the Southern Ḥaurân almost every site south of the ancient road from Derʿâ to Bosra and Şalkhad, and east of the Ḥadjdj route, was visited, and buildings of greater or less interest were measured in most of them. In this region are included such important sites as Bosra, Umm idj-Djimâl and Umm il-Ḳottên, in each of which places the expedition remained long enough to make a thorough examination of all the ruins, and to prepare measured plans of a large number of the buildings. In the same region were found several Roman military stations, some of which had been reported by travellers; but none of them had ever been published. In the Djebel Ḥaurân the researches of the expedition were confined chiefly to the ruins in the southern and southeastern part of the mountains, where practically every site was visited. In the northern, and western part of these mountains, where M. de Vogüé found much of his material, and where the American Expedition of 1899—1900 had been, and in the Ledjâ, and the plain west and southwest of it, only occasional sites were visited for purposes of detailed study. These places include Sîʿ, where a thorough examination of the entire site was made, and much new material was brought to light.

This section will follow approximately the order of the route pursued by the expedition from October 13th, 1904 to March 1st, 1905, beginning with ʿArâḵ il-Emîr and ʿAmmân, taking up the Southern Ḥaurân, and then the Djebel Ḥaurân, and ending with the Ledjâ. Special parts, or fascicules, are devoted to the ruins of Bosra, Umm idj-Djimâl, and Sîʿ, and maps of these sites are given, in addition to plans and restorations of the separate buildings. The monuments described in this section embrace a number of crude and massively built constructions for defence, and several stepped pyramids of considerable size, which are unquestionably older than the Roman period in Syria, and may be of great antiquity; besides a large body of monuments of pre-Roman date, built under Nabataean influence in the Southern Ḥaurân and the Djebel Ḥaurân, and a still larger number of Roman buildings of the 2nd—4th century, and buildings of the Christian period dating from the 4th to the 7th century. The buildings are published with measured plans, and with elevations and sections drawn to scale wherever possible. The ground plans are usually drawn to the scale of 0.0025 M. to the meter, and the elevations and sections to twice that scale. Measured drawings of details are given in figures, or are drawn to the scale of 5 cm. to the meter. The photographs were all taken by the expedition, and are published in all cases where they are serviceable for

a better understanding of the text. A table of abbreviations, and a diagram explaining the plans, is provided in each fascicule, (see p. VIII). It is difficult to be consistent in the spelling of words and of proper names taken from the Latin and Greek. Well-known words, like *propylaea* and *nymphaeum*, will be found unchanged, architectural terms, like *cavea* and *scaena* are taken from Vitruvius, so far as possible, Greek proper names, like Hyrkanos and Tyros are transliterated directly.

I am especially indebted to my colleagues of the expedition for many things: to Dr. Enno Littmann for information derived from the inscriptions in Greek, Latin, and Nabataean, collected by him during the winter, and for the transliteration of Arabic names; to Mr. Frederick A. Norris C. E. for the use of his maps, and for many measurements and distances too great to have been taken by the tape. It is also a pleasure to acknowledge the services rendered by Mr. Aymar Embury II and Mr. Walter W. Judell, architects of New York, in rendering the restoration of the Nymphaeum at 'Ammân, by Mr. C. F. Cook, C. E. of the Graduate School of Princeton, in redrawing the map of 'Ammân from Mr. George Armstrong's map published in Colonel C. R. Conder's *Survey of Eastern Palestine*, and by Mr. Clarence Ward, M. A., University Fellow in Archaeology, in rendering several drawings from my own notes and measurements. The names of these gentlemen appear upon their work.

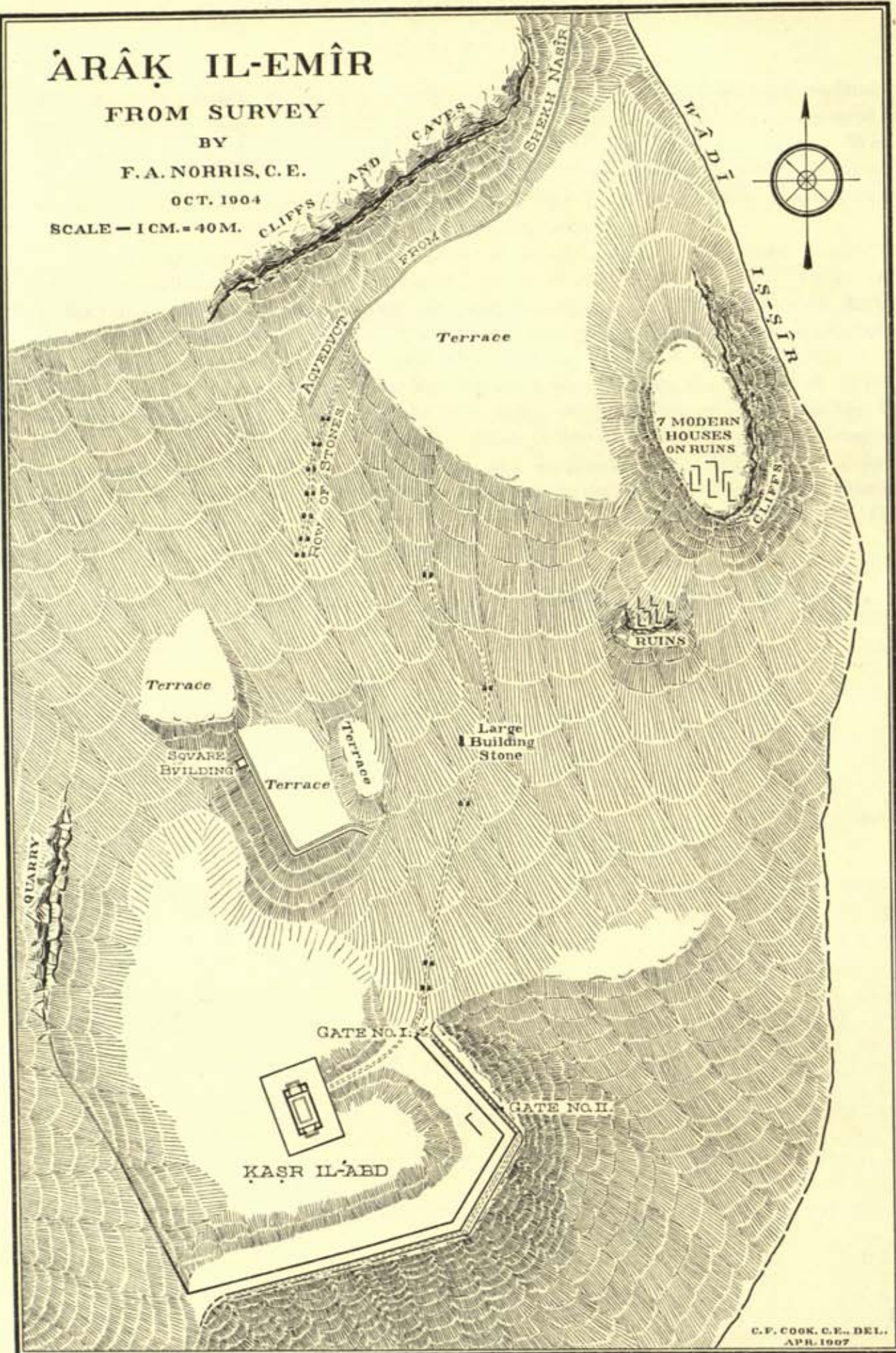
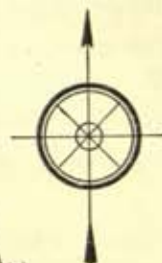
HOWARD CROSBY BUTLER

Merwick

Princeton University

Dec. 20th 1906.

SCALE — 1 CM. = 40 M.



C.F. COOK, C.E., DEL.
APR 1907

1. AMMONITIS.

1. 'ARÂK IL-EMÎR (TYROS).

The great ruin known as 'Arâk il-Emîr, in the mountains east of Jordan, about seven hours from Jericho, was first brought to the serious attention of scholars by the Count de Vogüé in 1864, when he published his "*Temple de Jérusalem*"¹; though the place had been visited as early as 1817 by Mess'rs Irby and Mangles, and is mentioned in the account² of their journey in Syria. Mr. Bankes, who accompanied the English travellers on this part of their voyage, recognized 'Arâk il-Emîr as the site of Tyros, where, according to Josephus,³ a "palace" was built by one Hyrkanos in the early part of the second century before our era. M. de Vogüé established the identification beyond the possibility of a doubt, and described the building at some length. He was followed by M. de Saulcy, who in 1865, published a description⁴ and a large plan of the site. Since that time many travellers have halted at 'Arâk il-Emîr, and have devoted greater or less space to descriptions of its ruins. Many of these are mentioned in the accompanying bibliography. Only two of these many visitors have attempted a publication with definite details, of the great central ruin, and none of them has made more than casual mention of the smaller ruins about it. M. de Vogüé presents a rough plan, with approximate dimensions of length and breadth, a hasty reconstruction in elevation and cross section, on a very small scale, together with a few measured details, and a sketch of some of the ornament, all of which appear in the text, beside two plates, one of which is a perspective drawing of the main ruin, the other a drawing of the entrance to the rock-hewn chambers in the cliff above. Captain Conder,⁵ who spent several days at 'Arâk il-Emîr in 1881, while making his survey east of Jordan, published a small plan, even less detailed than that of M. de Vogüé, giving a few rough drawings of some of the details already published by M. de Vogüé, and adding inaccurate drawings of a few others. He also published a general plan of the site, together with a sketch of the main ruin, and a large number of measured drawings of the caves. Several photographs of the ruins have been published by other visitors.

M. de Vogüé was far from satisfied with his publication of the chief monument, and strongly urged that our expedition make a point of visiting 'Arâk il-Emîr with a view to securing more details of the great building, and extending the search for inscriptions. The results of our work upon this site are contained in the following pages.

¹ *Temple de Jérusalem*, Le C^{te}. de Vogüé, Pls. XXXIV XXXV, Text, pp. 38-43.

² *Travels in Egypt and Nubia, Syria and the Holy Land*. The Hon. Charles Leonard Irby, James Mangles, London, 1852, p. 146.

³ *Antiquitatum Judaicarum*, XII, iv, 11.

⁴ *Voyage en Terre Sainte*, F. de Saulcy, 1865, pp. 211-235.

⁵ *The Survey of Eastern Palestine*, Capt. C. R. Conder, pp. 65-87.

It is not difficult for one who has been upon the spot to understand at a glance why all descriptions of this ruin have been so fragmentary and so unsatisfactory. The huge building has completely collapsed, and the gigantic blocks of which it was built are piled in heaps upon the foundations, so that it is not easy to trace even the outlines of the structure. So great are the dimensions of the building stones that they could not be moved from where they lie without powerful machinery, (no one would suggest that they be broken up by means of explosives), and no excavations can be carried on, and no final restoration of the building can be made, until the great masses of material are removed; so that it seems likely that investigations below the surface must be indefinitely deferred. The Princeton Expedition arrived at 'Arâk il-Emîr on October 13th, 1904, and remained six days. During that time a survey was made of the whole area within which any ruins are found; a diligent, though unsuccessful, search was made for unknown inscriptions, and a study of the ruins was made as thorough as was possible under the adverse conditions. By digging at three points, the only ones possible among the heaps of building blocks, the foundation course of the building was discovered, and the first course above the foundation was found to be continuous on both sides. By removing fragments at the top, and crawling about under the heaps of fallen blocks, other details of the plan were traced and measured; for the size of the blocks is so great that the interstices between them are large enough to permit one to find his way far down among them, sliding, head first or feet first, through tortuous passages, and often finding himself in a sort of cavern. In one such place, I found a complete human skeleton, showing that the Bedawin know of these passages and caverns, and, perhaps, that they have used them to hide the evidence of crime. In two places, one at either end of the building, a large number of details was extracted from the ruins with considerable difficulty; these, and all details lying upon the surface, were photographed and measured. Those which we took out of the debris were in a far better state of preservation. Drawings to scale of all these details, and photographs of many of them, are given herewith, and the proposed restorations here presented are the result of a piecing together of these fragments with reference to their position in the ruins and in connection with the measurements and location of those parts of the structure that are still standing.

Description of the Site.

It will be only a repetition of what others have done, to give a translation of the passage in Josephus, and to describe the ruins and their surroundings; but it is important to have the ancient reference, and a description of the site in its present condition before us, in taking up anew the study of these ruins. I give the clauses of the ancient reference separately, and comment upon them in order. Josephus, writing toward the end of the first century of our era — about 250 years after the events which he described had taken place, says:

- (1) "He (Hyrkanos) called the place Tyros. This place is between Arabia and Judea, across the Jordan, not far from Essebonitis".
- (2) "He also erected a mighty building,¹ which he constructed of white stone even

¹ Βεῖσις, in the Greek, translated *turris*, does not necessarily mean a palace, as translated by M. de Vogüé, Bankes and others. Josephus elsewhere applies the word to the fortress beside the temple at Jerusalem.

up to the roof, and adorned with sculptures of animals of enormous size, and he surrounded it with a moat (ἐνὶ πύλαις) wide and deep”.

(3) “And in the rock of the opposite mountain, cutting through the projecting portions of it (ἐν τῇ περὶ ἑξέχοντι), he excavated caverns of many stadia in length; he then made chambers in it, some for feasting, others for sleeping and for the usual conveniences of living”.

(4) “He also brought a supply of running water which added much to the comfort and beauty of the residence”.

(5) “And he also built, in addition (to the above), halls of different dimensions and adorned them with spacious gardens”.

(1) A glance at any good map will show one that ‘Arâk il-Emîr lies between ancient Arabia and Judea; it is also near Heshbon. Irby and Mangles covered the distance in four hours. The present name of the stream near by is Wadi iṣ-Ṣîr, a name reminiscent of the ancient name of the place.

(2) The ruined building called Kaṣr il-‘Abd, at ‘Arâk il-Emîr, is the only ruin of importance in this locality, west of ‘Ammân; it was certainly a mighty edifice, was built of white stone from the foundations to the cornice, and was adorned with colossal figures of lions in relief, four of which, three meters long and two meters high, are still in place. To the south of Kaṣr il-‘Abd the remains of a dam are to be traced across the valley; the building itself stands on a mound in the middle of a depression, and the end of a water conduit was found at the upper end of the valley, showing that the depression was once flooded, leaving the great building upon an island, or perhaps a peninsula, as it appears now, a little larger than the area of the building itself.

(3) High above the ruins, to the west, north and northwest, rises a steep mountain side, the foot of which is not more than 300 meters distant. A precipitous cliff far up the mountain side, about 600 meters northeast of the ruins, is honeycombed with artificial tunnels and chambers, in one and two stories, with roadways for approach, and long passages before the entrances. These can hardly be described as “many stadia in length”; but there are chambers of all sizes, some spacious and highly finished within, others small and more crudely executed; while others still appear to have been kitchens, with outlets for smoke, and stables with mangers for a hundred horses or more.

(4) From the site of the ancient building to a point far up in the valley of the stream, an aqueduct, partly rock-hewn and partly built up, can be traced with a few breaks. The conduit received the water of the Wadi iṣ-Ṣîr at a level higher even than that of the artificial caverns, and must have brought a goodly supply of water to the settlement, with considerable fall.

(5) One of the “halls” may be recognized in the structure now in complete ruins on a terrace halfway up the slope between Kaṣr il-‘Abd and the honeycombed cliffs, or, perhaps Josephus may refer to a group of buildings on a higher plateau just below the cliffs, jutting out toward the wadi. This spot is the site of the very small and wretched modern settlement. It has probably been inhabited, at times at least, for centuries. All traces of the ancient edifices have disappeared, save a few building stones and some broken columns of the Doric order that have rolled down the slope. Remains of the gardens are to be seen in an elaborate system of well built terraces which extend from the Kaṣr il-‘Abd all the way up to the cliffs, and for a considerable distance down the valley below the ruins.

The site of ancient Tyros, (Ill. 1 A) is one of exceptional impressiveness and beauty; lofty hills to the west, north and northwest, form a hollow like the *koilon* of a greek theatre, built high up in the mountains and opening upon a splendid vista toward the south. If one follows the simile, the orchestra is occupied by the dry bed of the ancient artificial lake, in the midst of which, like the *thymele*, rose the massive structure of white stone with its frieze of lions. The line of the *skene* is marked by the long ruins of the retaining wall that confined the waters of the lake. Immediately beyond this, the slope descends steep and ruggedly for 200 or 300 meters into the valley of the Wadi iṣ-Ṣīr. The scene viewed from the ruins, or from the slopes above them, is one of remarkable grandeur. A deep gorge lies immediately below the site, widening out toward the southwest in the direction of the valley of the Dead Sea. Mountain rises above mountain in the distance, all grey, barren and rugged; but taking on hues, now vivid, now sombre, with the changes of light and atmosphere. The picture is one of magnificent desolation, and this effect is accentuated by a narrow broken line of dark, rich green, traced by a rank growth of oleanders that marks the course of the Wadi iṣ-Ṣīr. This band of green was splashed with patches of brilliant pink blooms, as we saw it in the waning autumn, when all else was parched and burned by the long drought of summer. The only sound is the music of a succession of waterfalls to the east of the ruins, which strikes the ear with unwonted sweetness in so barren a wilderness. On all sides the decaying works of men's hands add a touch of formality to the imposing scene that nature has provided. Winding walls mark the approach from the valley below, while around the bed of the lake, rising terrace above terrace, the huge retaining walls of the "hanging gardens" stand out in rugged relief, suggesting the handiwork of the Cyclopes.

The ruins consist, (1) of the building called Kaṣr il-ʿAbd, (2) of two gateways on the course of the approach, (3) a building on a terrace north of the Kaṣr il-ʿAbd, (4) the terrace walls, and (5) the aqueduct, besides the mass of debris below the modern Bedawin settlement, and the rock-hewn chambers. These are all indicated upon the accompanying map, and are described in order below.

KAṢR IL-ʿABD. — The "Castle of the Slave", the most important of the buildings at ʿArâḳ il-Emīr, has long been known as the Palace of Hyrkanos. There is no particular reason for calling the ruin a palace; though it seems with small doubt to have been built by Hyrkanos, and the question arises: what other kind of building would this adventurer have been likely to build? Neither the Greek *βῆρις* nor the Latin *turris* necessarily implies a palace, and Josephus expressly states that rooms for feasting and for sleeping were provided in the caves, and that other halls (*αὐλῆ*) were constructed, in addition to, and apart from the *βῆρις*, and surrounded with gardens. If the banquet room and the bed chambers and other spacious halls were not in the "palace" it is difficult to imagine what rooms were in it. Moreover, it has no resemblance to an ancient stronghold — a castle or a fort — either in plan or in outward appearance. M. de Saulcy calls it an Ammonite temple, and, indeed, the form of the building is more like that of a temple than any other kind of building; but it is not easy to account for the building of a temple by the rebellious brother of the king of Jerusalem, unless a second temple to Jehovah and a new Jerusalem were projected. The building was placed upon a low, flat, rectangular mound or platform hemmed in by retaining walls



A. General View of 'Arāk il-Emir from the Northeast.



B. Kaşr il-'Abd, East Wall at South End.
 Ill. 1.

and almost completely surrounded with water.¹ The rectangular space was only slightly larger than the building, providing a narrow passage all around it, and connecting, at the northeast angle, with the ground to the east, by means of a roadway; that is, if we assume that the causeway is contemporary with the building.

The outline of the building is a great rectangle, just twice as long as it is broad; (Ill. 2) its longer axis runs about north and south.² The rectangle measures 37 m. x 18.50 m., which would be 100 x 50 feet, if two thirds of the Babylonian cubit of 555 millimetres, i. e., 370 millimetres, be taken to represent the foot used. The two ends of the east wall are preserved up to the cornice (Ill. 2. A.), between them the first course was found to be intact; the second course, composed of megaliths about 2.50 m. high and with a maximum length of 5.36 m., is broken at intervals, which are shown as a doorway and windows on M. de Vogüé's and Capt. Conder's plans. The third course is still represented in its place by four blocks and a half, each 1.55 m. high, and aggregating 17 m. in length. Above this are sections of an ornamental string course upon which rest four blocks of the great frieze, 2 m. high. (Ill. 1. B.). All the rest of the building is in a complete state of ruin. It was very difficult, for reason given above, to secure data even for the plan given here.

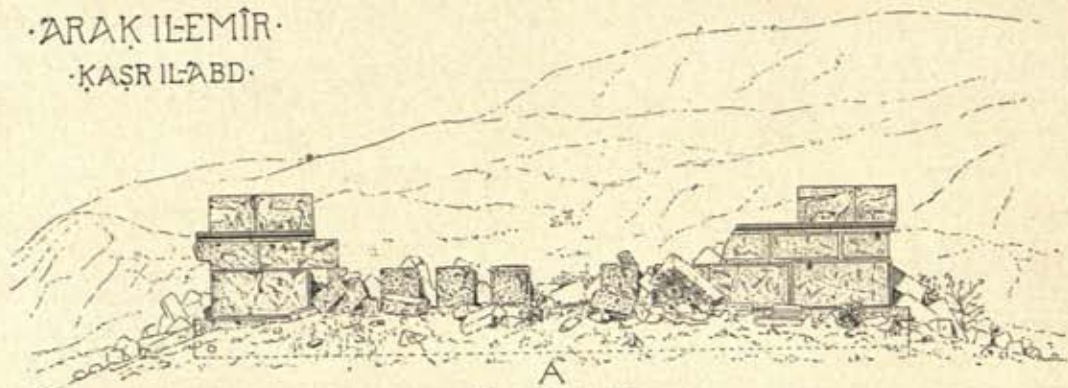
Plan. — This was made from measurements of the foundations, or of parts of the superstructure in situ, as follows: The north wall, including the thickness of the end walls, was found to measure 37 m. From the north east angle to the northwest angle, where the first course is still visible (Ill. 2. B.), the length is 18.50 m. Only the foundations of the west side are in place, except at the ends, but many details for the reconstruction were found along the line of the wall. The middle third of the north end was open, forming a portico with two columns in the opening: the bases of these columns were found approximately in situ. At the south end a similar arrangement seems to have existed, though the evidence is not so perfect; for only the shafts of columns were found, and two blocks, that appeared to be plinths, in the opening. Within the opening at the north, at a distance of 5 m. from the wall, is a transverse wall with parts of its first course in situ and with a doorway in the middle. On the right and left, between this wall and the north wall of the building, are longitudinal walls inclosing chambers (5 m. x 3.60 m.), in the angles of the building. In the chamber on the east was a staircase.

Within the opening at the south end there appears to have been a transverse wall 3.55 m. from the outer wall, and here, as at the opposite end, chambers are found in the angles, these 3.55 m. square. The transverse wall seems to have been unbroken except near the ends, but the evidence for this is not conclusive. The two chambers have small doorways opening into the interior of the building, and one of them at least, probably had an opening in the side. Thus far we have an oblong structure with distyle openings and enclosed porches at either end, and rectangular chambers in the angles, flanking the porches. The interior presents an enigma; it is now filled with debris, — soil to the height of 2 meters above the foundations — and, upon this, heaps of ponderous blocks of limestone are piled, except in the middle where masses of

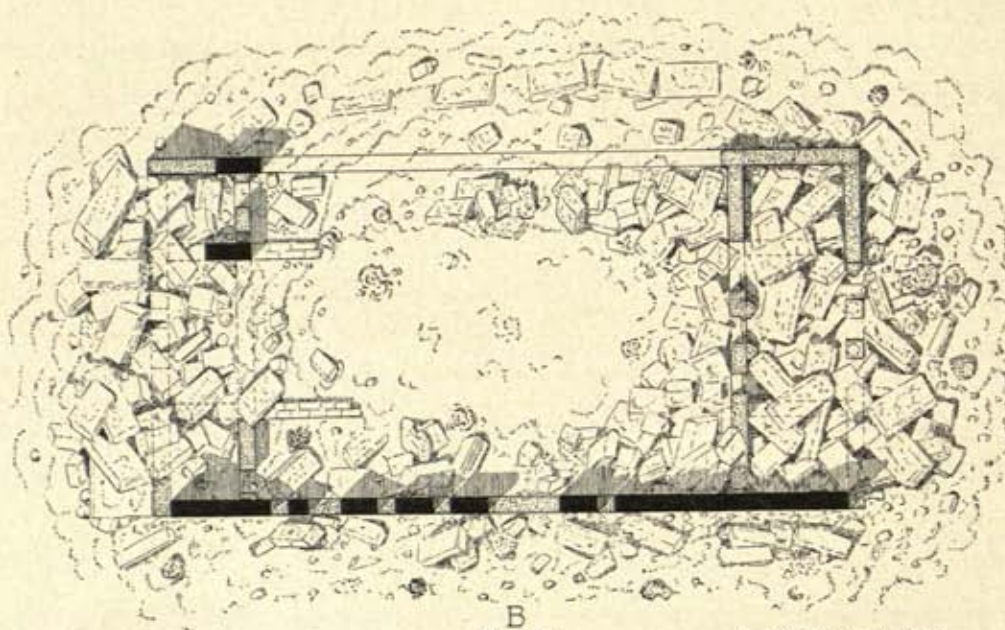
¹ The causeway which now connects the ruin with higher ground to the east, may have been built in the middle ages, when the structure seems to have been fortified, to some extent, by the Mohammedans.

² Bearing of front wall, 160°.

·ARAK ILEMİR·
·KAŞRI L'ABD·



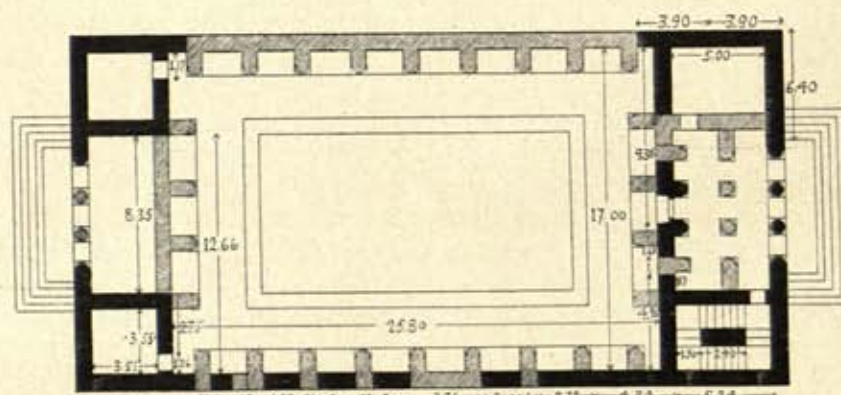
A
·EAST WALL·
·ACTUAL STATE·



B
·PLAN·
·ACTUAL STATE·

Scale: 0.0025 = 1m.

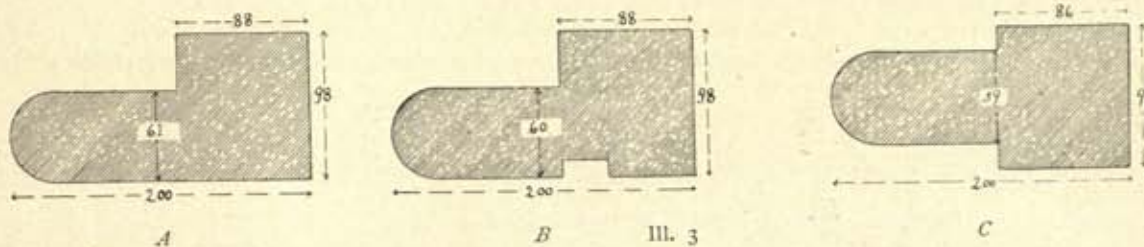
Foundations in situ.
First course
Second course
Walls hidden by ruins.



C
·PLAN RESTORED·

Walls in situ.
Restored parts.
Conjectured.

broken stone and fragments of details are thickly interwoven with scrub oak. At the south end two walls project inward on the lines of the inner walls of the angle chambers (Ill. 2. B); but these, with other fragments of interior walls, are poorly constructed of small blocks of stone, entirely out of keeping with the rest of the structure, and probably belong to the Mohammedan period. The ruins of the side walls show exactly similar details on both sides. The east wall is broken quite irregularly throughout its second course, as is shown in the restored plan (Ill. 2. C.); four of these breaks measure .88 m. to 1 m. wide, and the stones between them, or next to them, are exactly 2 m. long. The wide space in the middle, shown on other plans as a doorway, measures 3.72 m.; a stone of the second course lying beside the opening measures 2 m. in length, leaving two spaces, each .88 m. wide, on either side, if it were replaced. I am convinced that these spaces were not originally openings; for just inside the wall there are stones of the shape shown in Ill. 3 which exactly fill the spaces. These

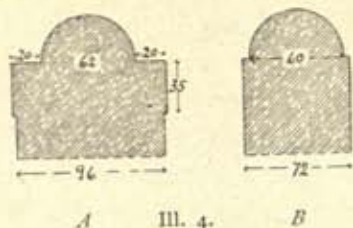


blocks are of peculiar shape, being T form or L form in plan, the foot of the T or L terminating in a semicircle, or (in elevation) in a half cylinder. Now these dressed blocks of irregular shape are nothing less than parts of the regular wall coursing with interior projections, terminating in half columns, cut in this peculiar way for special solidity. Measurements taken at the top and bottom of the half columns show a decided diminution, and there are many half capitals lying near by, which fit them nicely, as will be described later. On the opposite side a similar set of wall blocks of the regular coursing, 2 m. long, and T form and L form blocks, and half capitals show that the two side walls were similarly arranged. The spacing, as shown in the restored plan, gives nine half columns on either side, with narrower spaces at the ends next the walls. The presence of ill-constructed, probably modern, walls upon a line connecting the inner walls of the angle chambers has led me to conjecture a foundation of some sort far below the present surface; but whether this foundation was one for a wall or for a row of columns is entirely uncertain. If a wall were placed here, we should have a partial reproduction of the conjectural plan of the Temple of Jerusalem.¹

A restoration of the north porch, including all the details at hand, is even more puzzling than the restoration of the side walls. The distyle entrance can be restored with certainty; for the lower part of an engaged column on the west side is still in situ; the bases of the columns have been only slightly dislodged, and all the details are lying close together. The order of these two columns is an Oriental variation of the style which we call Corinthian, and will be described fully below. But within lies a confused mass of details, all of which undoubtedly stood just above the spot where

¹ See *Temple de Jérusalem*, de Vogüé, Pls 14. 15.

they now lie. They include three capitals and three half capitals of the same dimensions as the pair which belong in the entrance, but of a different order (a nondescript order which we may call Persian for present convenience). An odd number of one or the other is of course impossible in any arrangement of the porch, and we must conclude that other similar caps lie hidden in the ruins of the porch. Parts of two



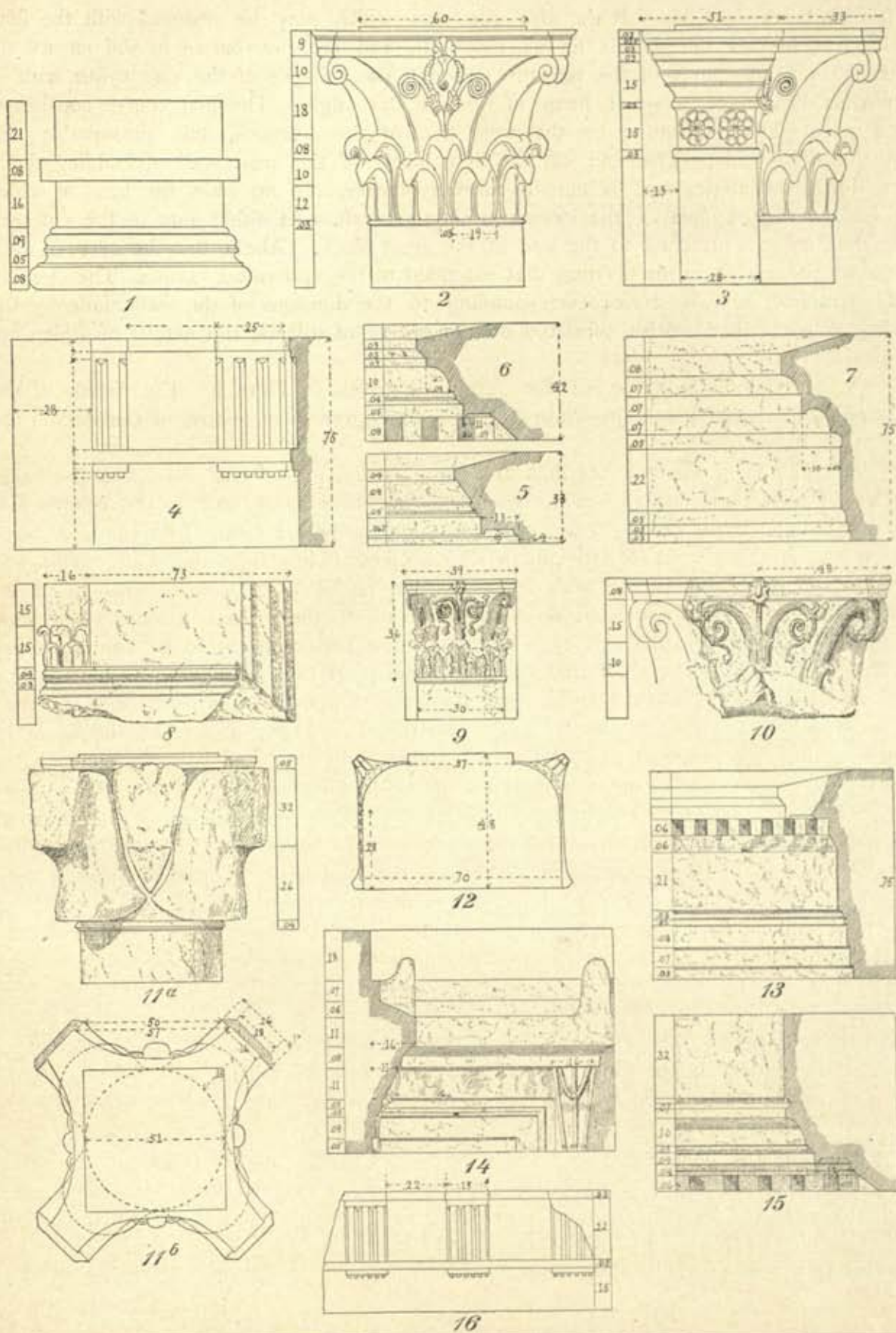
engaged columns (Ill. 4 A) stand one on either side of the portal; both have fallen forward at an angle, and may have been shifted slightly from their positions, but if they are to come exactly opposite the entrance columns they will be only 2 meters apart on centers, and that will not allow for the lintel of the portal, which is itself over 2 meters long. These engaged columns, which I was able

to see, but which I was unable to approach from the front, were measured from inside, and I probably made the error of measuring the walls adjoining the portal instead of the backs of the engaged columns, which should then be placed in the spaces on either side as I have shown in the alternate plan on Plate III. These spaces were not doorways, as they are shown on M. de Vogüé's plan, for they have neither door-stops nor mouldings. Some arrangement of columns within the porch was required to support the slabs, 2 meters long, which covered it. The finding of a section of pier with an engaged column (Ill. 4. B.) in the porch, suggested the restoration Ill. 2. C.; but the presence of more than two "Persian" capitals in the same space gives weight to the alternate plan on Plate III; for the section shown in Ill. 4. B. may have fallen from within the portal.

Superstructure. — The north facade is restored largely from fragments shown on the opposite page, and numbered as follows.

- | | |
|---|--|
| 1. Base of lower order. | 6. String course. |
| 2. Capital of lower order. | 7. Uppermost cornice. |
| 3. Cap. of antae, lower order. | 8. Pier of upper order, side view of Base. |
| 4. Architrave and frieze, lower order. | 9. Cap. of upper order, front view. |
| 5. Cornice of lower order. | 10. Angle-cap below main cornice. |
| 11a. Capital of interior columns of porch and of interior half columns. | |
| 11b. View of same from above. | 14. Lintel of main portal. |
| 12. Bottom of antae caps in upper order. | 15. Block of cornice from outside the wall. |
| 13. Interior entablature. | 16. Small architrave and frieze from the interior. |

The base course, or the side of the foundation, projects 18 to 25 cm. beyond the face of the walls: its height is purely a matter of conjecture in these drawings. Above this the three main courses are treated, in part, as drafted masonry. The first course has a height of 2.10 m. on all sides, and a thickness of from .88 m. to .90 m., averaging in length, 3.90. The stones of the second course are of huge dimensions, varying from 2.45 m. to 3 m. in height. The long blocks forming the angles of the building are from 5.24 m. to 5.36 m. long. The third course varies in height owing to the uneven height of the course below, at its lowest it measures .95 m., at its highest, 1.45 m. The string course is not equally high at all points, but its mouldings do not change, and its top was level all around. The course which bears the frieze of lions varies only slightly, from 1.92 m. to 2.10 in height, and is 80 centimeters thick including the relief. The north façade (Plate I.)

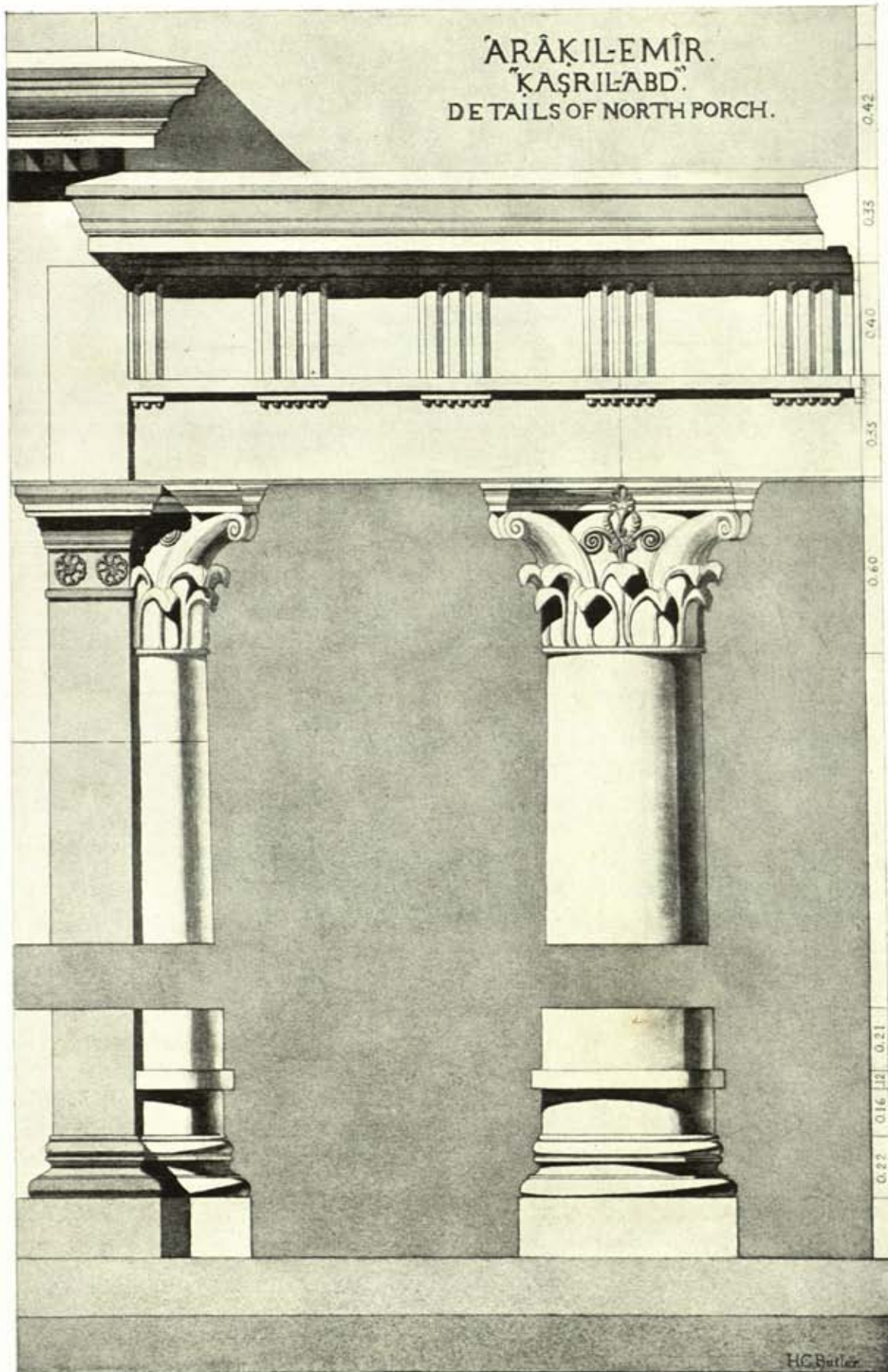


Ill. 5.

was apparently the front of the building, as is frequently the case with ancient edifices of importance in Syria. It is also the part which may be restored with the least difficulty; for all the details lie as they fell, and are not buried in soil as are the details in other parts of the structure; though the collapse of the east tower with its staircase has made a great heap of ruins in this angle. The first course consists of one great block of stone on the west side of the entrance, and, presumably one on the other side. The end of the first block of the west wall of building forms the northwest angle, and is cut to form a pilaster, .80 m. wide, the face of which is flush with the face of the stones within the draft. At either side of the entrance is a half column attached to the end of the great block. Above this the massive walls rose on either side of an opening that extended to the uppermost cornice. The opening was arranged in two stories corresponding to the divisions of the wall made by the string course. The stories consisted of two orders of columns, the details of which are shown in Ill. 5.

A complete restoration of the façade is given in Plate I. The details of the restored order are given in Plate II, and photographs of many of the details are shown in Ill. 6.

The plinths of the two columns are plain blocks, not of one piece with the bases as was the Roman custom. The bases, on the other hand, both in the columns and the half columns (Ill. 5, n^o. 1) are executed upon the lowest drum of the shaft. Above the base, at the height of 16 cm., a ring projects boldly from the shaft. This was not blocked out to be carved with foliage, as suggested in the sketch shown by M. de Vogüé; for the line of the shaft does not curve up to the projection, as may be seen in the photograph (Ill. 6, Frag. 1). The projection had probably to do with quarrying and transportation. The shaft, measured in three fragments, is about 3.88 long. The capitals of the columns are a trifle lower than the compound caps of the half columns. (Compare Nos. 2 and 3, Ill. 5, with Pl. II). The Doric architrave and frieze of triglyphs (Ill. 5, n^o. 4, and Plate II) are combined in a single course, 75 cm. high, in three blocks each 2 m. long, the metopes of the middle block are a little wider than those of the end blocks. The half triglyphs at the ends were undoubtedly placed above the half columns. The guttae are not conical, as they have been described; but cylindrical, as shown in Ill. 14. A., which is taken from the frieze of a small building near by. I could not satisfactorily photograph the frieze in question. The cornice (Ill. 5, n^o. 6) was found in its entirety, though broken. The combined heights of the details thus far enumerated are just equal to the height of the wall below the string course. The string course, with its denticulations could not have been carried above the cornice, and must have been stopped in some such manner as I have shown on Plates I and II. It seems hardly probable that the lion frieze was carried across the front, above the slender supports of columns, and the presence, in the ruins, of piers with engaged colonettes suggested the restoration shown in Plate I. The restoration is based upon the use of fragments 8, 9 and 12, in Ill. 5, fragment 9, shown in face, being undoubtedly the capital corresponding to the foliate base of fragment 8, shown from the side, and fragment 12 being unquestionably a respond to 9. There can be no doubt whatever that the cornice represented by fragment 7 was the crowning feature of the building; for pieces of it are found outside the building on all sides. The lions are restored from careful measurements of the four lion figures still in place, the



outlines of which are distinct though the details of the carving are effaced, and from broken fragments extracted from the ruins. Fragment 10, found at the northwest angle is one side of the cap of the angle pilaster. Its volutes and foliage spring from the top of the head of one of the lions — the first lion at the north end of the west side of the building. This shows that the lion figures were carried to the extreme ends of the walls and across the pilasters. The positions of the lions at the two ends of the east wall show the same treatment. For this reason I did not hesitate to place the tails of the adjacent lions, on the north wall, below the pilaster caps. The fragment 10 gives also the crest and part of the ear of a lion, and the fragment shown in the photograph (Ill. 6, Frag. 10), gives the breast, shoulder and upper part of the leg of a lion, while two small fragments show the upper and the lower jaws. M. de Sauley gives a sketch of a lion's paw. The combination of these pieces, upon the outlines furnished by the extant figures, presents a mixture that suggests both Phœnician and Persian sculptures, a mixture represented also in the character of the architecture. The capitals and half capitals lying in the ruined porch are of a unique form, as may be seen in Ill. 5, N^o. 11, a and b, and in the photograph (Ill. 6, Frag. 11). I have referred to them as Persian for the reason that they appear to have been composed of animal heads. They are all alike in shape and in surface treatment, and are of the same size and design as the numerous half capitals found in the interior. The front view of one of these capitals shows the breasts and necks of two animals, the heads are also shown; but the faces are represented by flat trapezoids. On the bell of the capital, between the heads, is the rough outline of a bird, presumably an eagle, with wings raised, perched upon a triangular shield. The whole surface, of the animal heads and the bird, is in every case worked down so that the appearance and dimensions of all the capitals are the same; yet the surface is not smoothly finished, so that we are forced to accept one of two conclusions: either that the details were blocked out for the finer sculptors' work that was never carried out even in a single instance, or that metal details were to be applied to the stone, and the absence of nail holes would seem to indicate that this was never accomplished. The outlines and proportions of the figures, as we see them now, are best suited for transformation into horses' heads, though one might conceive of bulls' heads of the Persian type as being executed in the block forms, or applied in metal. I have represented the half columns in the porch (Plate III, Sec. A. B.) without bases, because I could not reach the bottoms of the shafts. And I have shown half columns of the Doric order in the upper story to correspond with the Doric half column on the inside end of the fragment 8. The height of the portal was not obtainable, but the width was easily found, with the details of the lintel, as shown in fragment 14, and Plate III. In making a restoration of the interior, (Plate III) I have confined myself to the side walls and the staircase which were the only portions for which there were any considerable data upon the surface. For the rest excavations are necessary. The restorations of the interior already made are, in my opinion, at fault. M. de Vogüé, following the suggestion made by the interior cross walls, divides the sides into three chambers each, these opening upon an hypæthral court, and provides the chambers with transverse tunnel vaults. I believe, as I have said above, that the present interior walls are of very late addition; they are poorly built of small, crudely broken stones mixed with better cut blocks, and are not in keeping with the megalithic character of the transverse walls at either end. I am



Fragments 1 and 3.



Fragment 8.



Fragment 9.



Fragment 10.

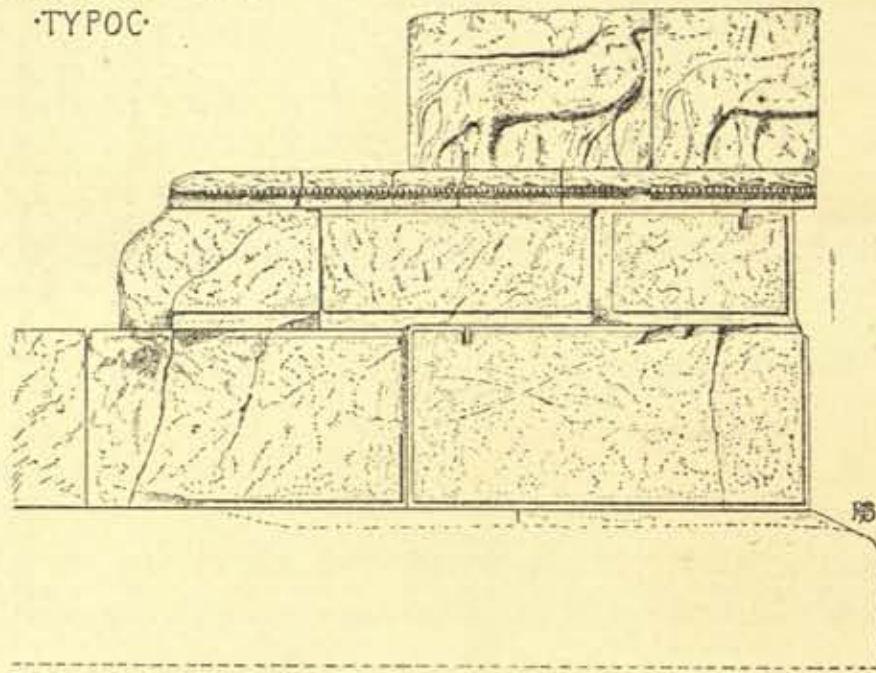


Fragment 11.

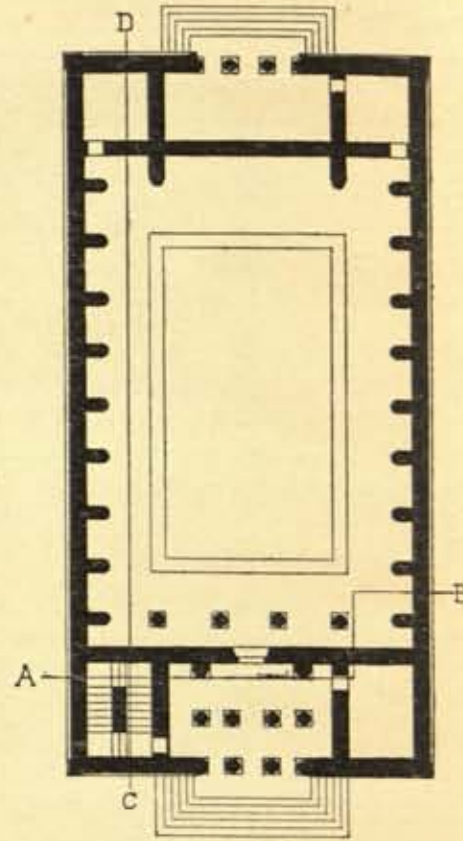


Fragment 12.

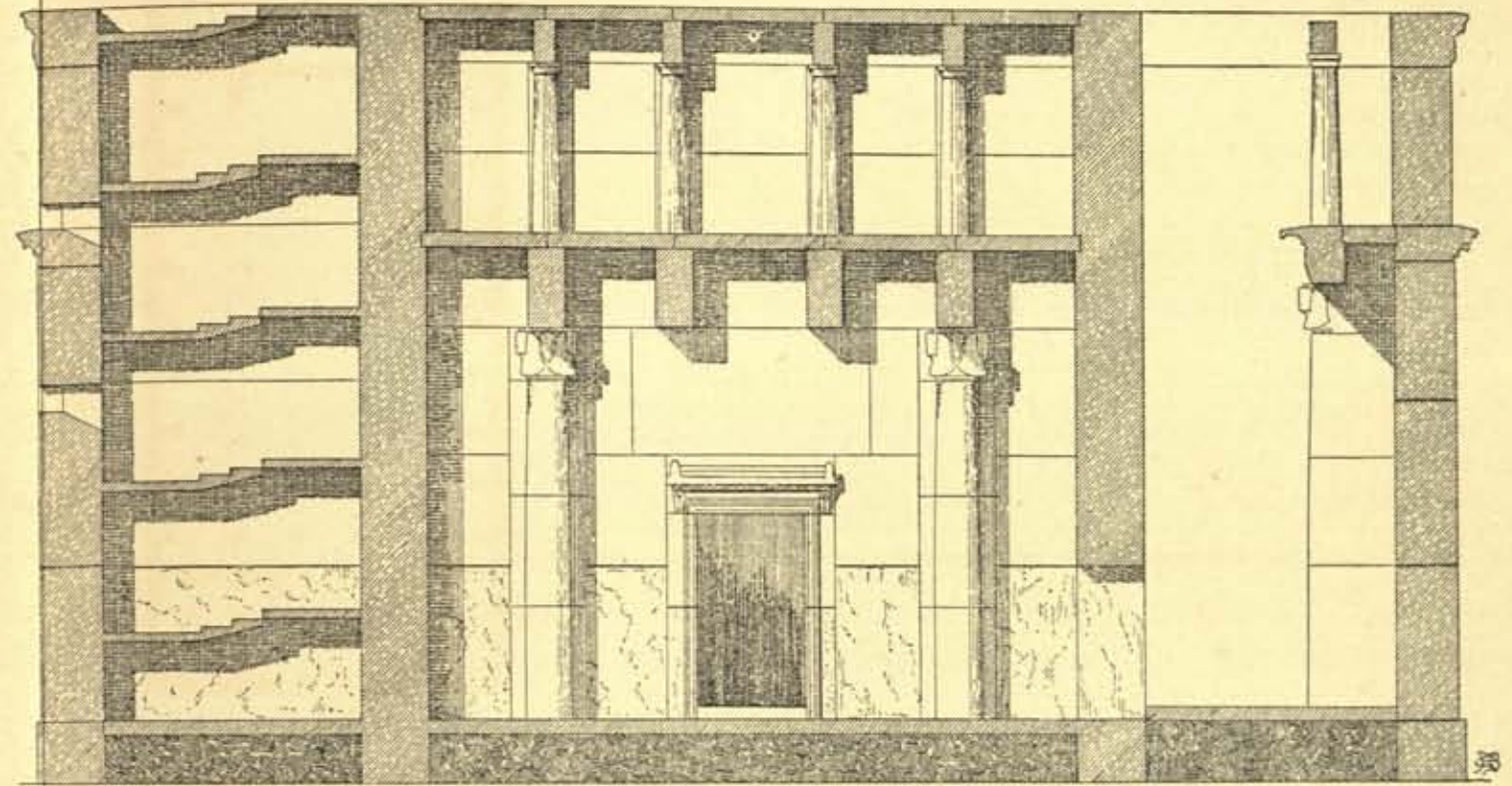
·ARAK İLEMİR·
·TYPÖC·



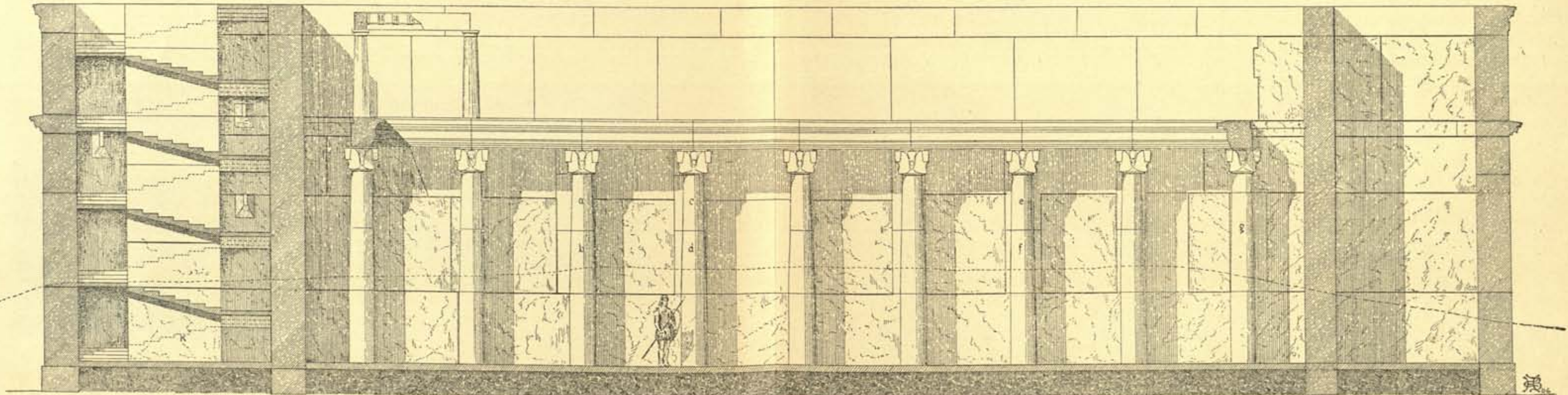
·KAŞIĞIL'ABD·
·EAST WALL · NORTH END·



·KAŞIĞIL'ABD·
·ALTERNATE PLAN·
SCALE: 0.0025 · 1 M·

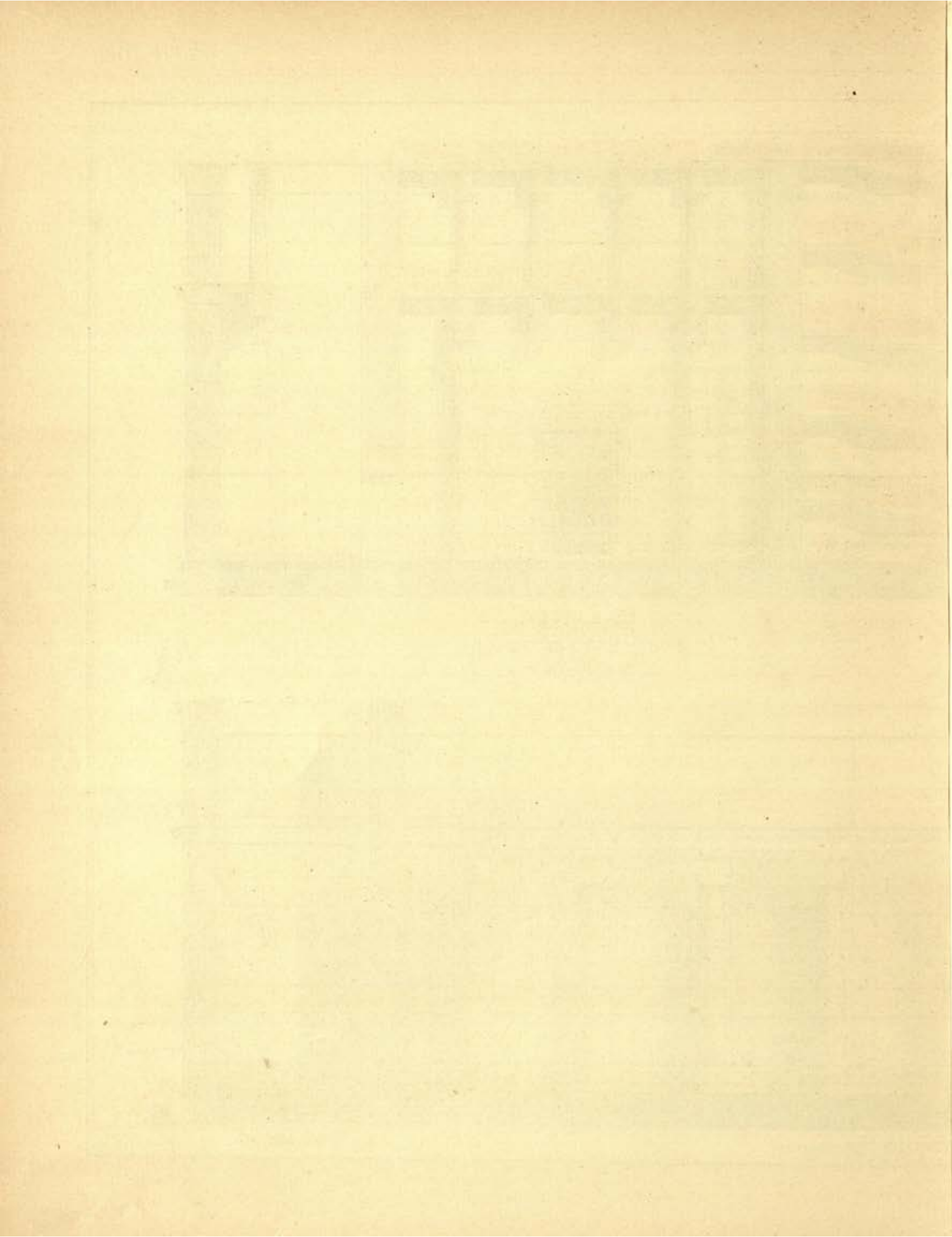


·KAŞIĞIL'ABD·
·NORTH END · SECTION · A-B·
·RESTORATION·



·KAŞIĞIL'ABD· SECTION · C-D· RESTORATION·

SCALE: 1 CM · 1 M·



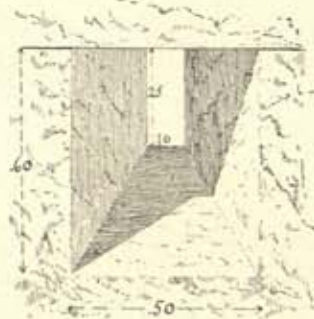
further convinced that the vaulting stones (*larmiers*), mentioned by M. de Vogüé, belong to the same late period. In any event, I should hesitate to place high vaulting in stone at a period so early as the second century before our era. The restoration made by Lange¹, and based entirely upon the sketch made by M. de Vogüé, is, for the same reasons, not to be considered. In discussing the plan, I have shown that the spaces in the east wall were not windows; in the same connection it may be stated that the broad opening in the middle of that side is not a doorway, as given by Lange and Conder, because the first course is unbroken at that point. I have also described the blocks, with projections terminating in half columns, that fit into those spaces, and, in Plate III, section C. D., I have attempted to show how these would appear in elevation. The blocks that are still in situ are scratched with irregular lines to represent stone, restored blocks are left white. The blocks in situ are, in most cases, surrounded with a double line. The first two half columns from the left were not bonded into the wall, at least their upper portions were not, but in the third and fourth half columns, the pieces marked (a), (b), (c) and (d), in Pl. III, Sec. C. D, and shown in Ill. 3, A and B, and those marked (e) and (f), and shown in Ill. 3, C. were all found immediately below the points where they are shown in restoration. The block marked (g) was found just outside the wall near its original place. Thirteen half capitals of the same style and dimensions as the Persian capitals of the porch (Ill. 5, Nos. 11 a and b) were found in the interior. These fit the tops of the engaged shafts. The architrave that I have placed upon these capitals (Ill. 5, N^o. 13) is represented by a number of blocks in the interior, one of which is complete, measuring 2.85 m. the distance on centres between the half columns. Each block is carved with mouldings that represent a banded architrave, a frieze and a cornice. The frieze was blocked out for sculpture, unless perhaps the sculpture has been defaced. The height of the columns with their architrave is determined by a mortice in the string course, which probably held one end of a slab, the other end of which rested upon the architrave. Above the architrave I have placed, at the left end, the beginnings of a second order, a small order of Doric columns. The details of this upper order are not wanting; for a section of a Doric shaft was found on the top of the second course as if it had lodged there in its fall, and a section of Doric entablature (Ill. 5, N^o. 16), without cornice, was found near by. I feel considerable doubt about the placing of this small order; for it seems quite possible that only the ends of the building were two stories high, rising like oblong towers at both ends of a long one-story building; in which case this small Doric order might have been used in an opening on the south side of the north tower (cf. Plate III, Sec. A. B).

From an examination of the ruins of the east wall, it is apparent that, in the collapse of the building, which could have been caused only by earthquake, the middle section of the wall itself fell outward; while the engaged columns, with the superstructure above them, fell inward. The effect of this parting caused the blocks to which the half columns were attached to be wrenched from their places, leaving the spaces in the second course as described above. The lower sections of the half columns were not bonded with the lower course, as the middle and upper sections were, and fell inward without disturbing the lower course. It would be impossible to make a definite

¹ K. Lange, *Haus und Halle*, p. 149. Pl. VI.

restoration of the south end from the ruins in their present state. It is quite safe to place a distyle opening in the outer wall, but it is difficult to determine the interior arrangement of the porch; for the details are buried in huge building blocks. The transverse wall appears to have been continuous, but this is not certain. I have given two different reconstructions of the interior of the transverse wall, but both are conjectural. In the same manner, two hypothetical restorations are presented for the interior of the north end; for whole capitals and half capitals were found at this point, and it is impossible, without excavations, to give preference to the one plan or the other. This north end is the only part of the interior where whole capitals are to be found, and, for that reason I hesitate to place colonnades in the interior about a court, as would seem very natural in a building of so great width. It is of course possible that columns, in this position, were among the first parts of the building to fall, and that they were afterwards buried in the two meters of debris that now fills the ruin; but the present surface does not offer a single drum of a shaft or a full capital, except near the portal, while half capitals and sections of half columns abound throughout the interior.

The staircase was an interesting piece of construction. It is now a confused mass of ruins. The tower, or chamber, which contained the stair, measured 3.48 m. by 5 m.; it contained a solid newel-pier .88 m. by 2.40 m. The flights, or goings, were thus alternately long and short, and there were square landings in the angles. Each flight was composed of a single inclined slab cut with steps in its upper surface, and morticed into the wall and newel-pier. The ascent was very gradual, the risers being only 10 cm. and the treads 40 cm.. Each long flight contained six steps; the short flights had but two steps each; each landing was a slab 1.30 m. square and 20 cm. thick and was morticed into the walls. The flight marked (K) is still in situ, though buried under heaps of debris. The mortices for steps and landings are still to be seen on the interior face of the outer wall, to its very top; these give the head room between landings as 2.12 m. It would be difficult to construct a stair-case more in keeping with megalithic construction than this. The windows (Ill. 7) upon the landings resemble the loop holes of mediaeval castles, being deeply splayed within, and appearing as small slits on the exterior, where they are hardly noticeable, one of them being cleverly consealed between the hind legs of one of the lions.



Ill. 7.

MASONRY. Every visitor to these ruins has been impressed with the colossal scale of the stone work. Many of them have described the walls of the *Ḳaṣr il-ʿAbd* as draughted masonry. Mr. Spiers¹ takes issue with this characterization, and, from observation of photographs, says that "this is *not* draughted masonry." It is true that while many of the great blocks in the wall, or lying in the ruins, have a draught, from 7 to 20 centimeters wide, and 3 to 4 centimeters deep, on all four of the outer edges, there are others which are draughted on only three or two edges, and some that are not draughted at all, as may be seen in the scale drawing of the north end of the east wall, in Plate III. It is important to notice that the portion of the surface of

¹ R. Phené Spiers, in Sturgis' *Dictionary of Architecture*, III, 714.

each stone within the draught is never rough faced or rusticated; but is, in every case, dressed to a smooth finish, which would seem to show that the work was completed, especially as the draught is carefully carried around the loop-hole in the stair-tower.

The height of each course varied on the four sides of the building, and the joints at the ends were effected in two different ways; one method is illustrated in Plate III at the right end of the longitudinal section, where the upper part of the third course in the east wall projects over the second course of the south wall, (Ill. I. B.) The other method was to construct an angle block with two short sections of wall-coursing of different heights projecting from it, as is shown in Ill. 8 which represents a block found at the northwest angle. Adjoining blocks in the same course were often joined by having a rectangular boss of 10—12 cm. projection on one stone morticed into a corresponding socket in the other stone, and some of the blocks with half columns projecting from them were provided with a mortice (Ill. 4. A.) to fit a tenon on the adjoining block. Some blocks of the string course have a boss or a socket at the top or bottom which fitted a corresponding member in the block above or below as the case might be. The construction throughout is a curious mixture of cyclopæan work and joinery.



Ill. 8.

GENERAL CHARACTER AND DATE OF THE RUINS. The various authorities who have made studies of the architecture of this great building have arrived at widely divergent conclusions. M. de Vogüé accepted the ruins as the remains of a palace erected by Hyrkanos, as described in Josephus' account, taking the style of the architecture as an example of Jewish art under Hellenistic influence. M. de Saulcy, on the other hand, could not reconcile the graven images of the gigantic frieze with the Mosaic law or with Jewish prejudice; nor could he believe that the extensive building operations on this site could have been accomplished by the fugitive priest during the brief period of his residence in the country east of Jordan, particularly while he was, at the same time, waging ceaseless wars with the Arabs. He believed that the building was a temple of far higher antiquity than the time of this Hyrkanos, and described it as a "*Sanctuaire des Ammonites*"¹, known to Hyrkanos as a ruin, and utilized by him, with slight interior alterations, as an improvised retreat. He recognized the work of the Jewish fugitive in the crude interior walls, described above, as the only parts of the structure likely to have been built during the seven troublous years of his self imposed exile. Looking to Phœnician prototypes, and, finding great antiquity in the name of Tyros, he designates the building upon his map as the "*Temple de Molokh*," and suggests that the rock-hewn chambers in the cliffs may have been the tombs of ancient Ammonite kings. Captain Conder accepts the views of M. de Vogüé without challenge, but discovers Egyptian influence in the interior capitals (Ill. 5, N^o. 11), which the French savant does not mention, and decides against the temple theory advanced by M. de Saulcy. Among the later explorers, none of whom has extended the researches of their predecessors, there are some who accept the first theory, and others who follow the second, according, apparently, as they are better acquainted with the "*Temple de Jérusalem*" or with the works of M. de Saulcy. I have already expressed my own doubt regarding the palace

¹ *Voyage en Terre Sainte*, p. 224.

theory, though I believe that M. de Vogüé was right in assigning the buildings here to the Hellenistic, pre-Roman period in Syria. There is much that is suggestive and significant in M. de Saulcy's theory. He shows conclusively the indefensibility of the building as a fortress, and points out several inaccuracies of statement in Josephus' account; but it is impossible to agree with his conclusions when he places the date of the main structure in distant antiquity. The character of the mouldings and other ornament is Hellenistic, and could not be placed earlier than the Seleukid epoch of Syrian history, nor later than the end of that period. It has been suggested that the details of the north porch may have been additions to an older building, that the interior capitals may represent an earlier period, and the capitals and mouldings of the porch a later epoch; but this arrangement is baseless when we consider that the string course below the frieze of lions, an integral part of the massive wall, is of the same Hellenistic character as the details of the porch. It is difficult to judge just how far the ruins represent the Hebrew architecture of the time, and to what extent they reflect the artistic traditions of other contemporary, or more ancient, neighboring peoples. There is little evidence to show that the Hebrews ever possessed an individual art of architecture. If the earliest temple upon the Ḥaram ish-Sherif was inspired with Egyptian and Assyrian traditions, as has been conjectured, and if the second temple was designed after Persian models, as is contended, it is safe to assume that Hebrew builders in other centuries would be equally affected by contact with the art of contemporary races who could boast of an independent architectural style. For this reason it is not impossible to agree with those authorities who see in the megalithic construction of the Kaşr il-ʿAbd the influence of contact with the architecture of Phoenicia, which is believed to have been of this character. It is a simple matter to trace the origin of the triglyphal frieze and the fluted columns to the later Greek sources of Hellenistic Syria, and it requires no stretch of the imagination to see the influence of Persian art in the curious capitals of the interior. The bull's head was interwoven even into the capitals of the Greek Doric order, probably as the result of contact between Greece and Persia, as one famous example shows, to cite the well known capitals of the portico of King Philip of Macedon on the Island of Delos, where one half of each capital is of simple Doric form and the other half is composed of the heads, shoulders and fore legs of bulls¹. It is interesting to find that the block capitals within the porch of the Kaşr il-ʿAbd, which I have designated as Persian, could be carved with figures of bulls of exactly the same description. So far as style is concerned, the architectural character of this edifice is quite what we might expect of an expatriated Hebrew. The presence of the graven images, represented in the lion frieze, raises quite another question; but it seems hardly a valid objection to assigning this building to Hyrkanos. We know little about Hyrkanos' religious scruples, before or after his flight, but we know from biblical sources that the Jews were ever ready, when opportunity offered, to imitate the sculpture of their neighbors, forbidden to them in Levitical law, and even to worship it. Hyrkanos was independent, he had cut himself off from relations with Jerusalem and from his priestly relatives; it is not inconceivable that he should employ sculptors to carve animal figures upon a building that he was erecting, especially if those craftsmen were not Jews, and the whole work was in the hands of Gentiles as it is likely to have

¹ Cf. *Expédition Scientifique de Morée*, A. Blouet, III, Pls. 5 and 6.

been. The time question, also urged as an objection by M. de Saulcy, is not an insurmountable obstacle to assigning this work to Hyrkanos. The Temple of Solomon, to use no foreign illustration, though one of the most stupendous works of antiquity, was but seven years in building; but thousands of workmen were employed upon it. The so-called palace of Hyrkanos, with all the structures about it, was a far smaller undertaking, and if the wars carried on by Hyrkanos, as described by Josephus, were successful, a large body of labourers might have been drawn from the prisoners. The problem of the purpose of the building, that is, of the use for which it was originally intended, cannot be solved until systematic excavations shall have revealed the entire plan of the interior. I believe, however, that excavations would show that the palace theory must be abandoned; for, as stated above, I feel confident that the crude walls, taken by M. de Vogüé to be the partition walls of the original structure, and by M. de Saulcy to be partition walls inserted by Hyrkanos into an older structure, were late work, probably of early Mohammedan times. The picturesque traditions about the building, still recounted by the Arabs, and embodied in the reports of so many travellers¹, probably belong to this late period which gave to the ruin its present name. The legends are most probably connected with the occupation of the place by one of the Muslim chiefs who converted it into a small mountain stronghold, dividing it by walls, and covering the small chambers, thus formed, with vaults of stone. Such a castle might be held against a band of hostile Arabs, though the original structure could not have been built as a fortress to stand against the armies and the war engines of Antiochos and the other powerful enemies of Hyrkanos. To assume that the building was a temple built by Hyrkanos involves the serious religious problem of making a Hebrew erect a rival place of worship to the one Temple of Jehovah on Zion's hill; or of imputing to him a bold apostacy in the raising of a temple to strange and unknown gods. To assume that the building was a temple built before Hyrkanos' time, and seized upon by him to be converted into a temporary defence, raises unanswerable questions as to when and by whom this early temple was built. On the other hand, it may be said that we do not know the nationality or the creed of the body of Hyrkanos' followers. They may have included many non-Jewish rebels against Seleukid rule in Syria, who demanded a place of non-Jewish worship, and that in order to maintain his leadership and establish his own sway, it was necessary for him to accede to this demand whether he had abandoned his own religion or not. However this may be, assuming the building to be a temple older than the time of Hyrkanos, we are obliged, for reasons pointed out above, to choose a date not earlier than the beginning of the Hellenistic period of Syrian history, the period, let us say, of Ptolemy II (285—247 B. C.) who was influential in Syrian affairs, and in honor of whom the name of the neighbouring city of Rabbath Ammon was changed to Philadelphia. This would make the temple about 100 years old when it was seized by Hyrkanos, by which time it might have fallen into disuse owing to the withdrawal of Ptolemaic power from Syria. The account given by Josephus would, in this case, have been based upon a local tradition about the building of the structure, of no more historical value than the tale of the Emir's daughter and the black slave, told today by the Bedawin. Either assumption, it will be observed, is based upon grounds for which there is no assured historical

¹ Cf. Conder, *Survey of Eastern Palestine*, p. 78.

foundation; and yet the ruins seem to show two facts which require the acceptance of one theory or the other. One fact is that the building was erected in Hellenistic, pre-Roman times, i. e., in the second or third century before our era; the other is that it was not a palace. If the statements with regard to the style and the plan of the temple are accepted, two questions remain unanswered. Josephus tells us that Hyrkanos built some sort of a building, the description of which is answered by this ruin, in a locality which closely corresponds to this place. If this building was not a palace could it have been a temple? We know that Josephus was often inaccurate; we know that Hellenistic influence was operative in this part of Syria one hundred years before Hyrkanos' time: is it probable that Josephus was in error, and that the building he ascribes to Hyrkanos was a temple built under Ptolemaic, or other Hellenistic, influence in Syria, a century, more or less, earlier than the time of Hyrkanos?

Much speculation has been indulged in on the subject of the means by which the massive blocks of this ruin were transported from their quarries in the mountain side, and much has been written under the impression that the building was never completed. Captain Conder describes minutely a line of stone posts¹ or cippi, which may be traced in pairs, set at approximately equal distance apart, from the ruined building along the causeway, and well up towards the cliffs. Each of these stone posts is pierced with a countersunk hole near the top. Captain Conder believed that they were connected with a system of pulleys and ropes by which the great building blocks were transported from the quarries to the building site. M. de Saulcy had described these posts as parts of a double barrier of wood along a "sacred way". Captain Conder shows that they were placed too near together to permit of such an explanation. Neither explanation, however, can be readily accepted unless certain points are granted, for the reason that the causeway at the place where it terminates, at the east side of the building, is more than two meters higher than the pavement of the interior of the building, and probably three meters higher than the platform upon which the building stands. It is difficult to believe that a sacred roadway was intended to approach the building at such a height, and it is impossible to believe that any considerable depth of soil has accumulated upon the top of a narrow ridge like this with sloping sides. On the other hand, if we are to accept the theory that the cippi were connected with the transportation of materials, we must grant that the causeway was temporary, and was raised to this high level to facilitate the placing of the huge blocks in the upper courses. In this case it must be assumed that the building was never finished, for the reason that the temporary road, with its mechanical appliances, was not removed, or lowered to the level of the platform. Other visitors have suggested that the cippi, with their apertures, were connected with a system of pipes, formed of hollow tree trunks, for the conveyance of water, but the distance between them, some 10 meters, seems too great for the support of this theory unless intermediate posts have disappeared. To all appearances, the causeway was either a temporary approach for the convenience of the original builders, who did not complete their work, or it was a late construction connected with the later occupation of the place. I incline toward the latter theory. It is crudely constructed, without retaining walls, and is composed largely of debris. The breach in the middle of the second course on the east side was in all

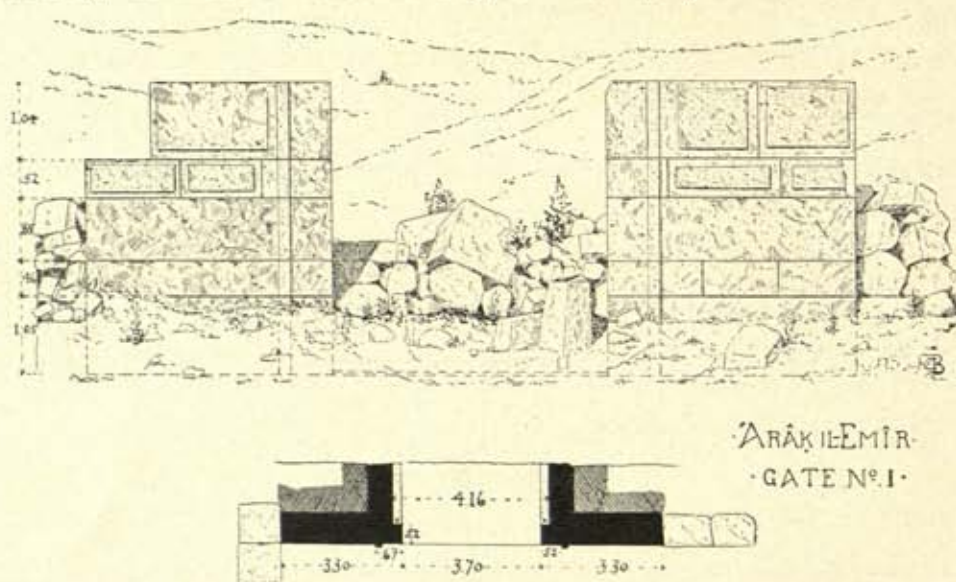
¹ *Survey of Eastern Palestine*, p. 85.

probability the entrance to the mediaeval structure, and the causeway leads directly to it at this level. The theory that the building was never completed, in the period of its original undertaking, can not be passed over in silence. The arguments urged in support of this hypothesis are as follows: (1) that the bosses or raised surfaces of the building blocks, within the draught, were not removed; (2) that the interior "Persian" capitals are not well finished, and some have urged that the lions were only blocked out; (3) the presence of a huge block of stone lying upon the slope about half way between the building and the quarries.

It has been stated above that the relief portions of the blocks, within the draughting, were not left with rock faces, but were well finished, showing that it was not the intention of the stone cutters to cut them away to the level of the draughts. The interior capitals, as I have said, are not highly finished; they do not appear in the form that they were to have had ultimately; but they may have been covered with plates of beaten metal held in place by the irregular undercutting of the block forms, and requiring no nails; for I observed no holes for nails. The lions, as they now appear, look as if they had been only blocked out for detail carving; but the finding of fragments that have chipped off, fragments of jaws, feet, and a shoulder with the locks of a mane flowing over it, show that these figures were finished, and have been reduced to their present state by the weather, and by intentional violence, probably on the part of the early Muslims. There are other cases of the presence of unused building stones in the neighborhood of great buildings: the great block in the quarries near Baalbek is an instance. The unused block at ‘Arâk il-Emir, from its dimensions, could have belonged only to the second course which was certainly complete; the block therefore must have been abandoned for other reasons. The high finish of all the details which we extracted from the debris, the delicate carving upon many of them, and the careful profiling of all mouldings, all seem to weigh against the theory that the building was incomplete at the period of its abandonment. It is not highly probable that the building, temple or other edifice, was occupied for many centuries after the founding; for there is no trace of the Roman work, which is so characteristic of neighboring ruins in Syria; yet the detail carving of the ruined gates along the approach, and of other minor buildings in the vicinity, all of which are of the same period as the great building, leads to the conclusion that the works undertaken here were completed. Furthermore, the abundance of potsherds upon the various levels shows that the place was occupied for a considerable period, by a population of no small numbers.

GATE NO. I. The principal gateway of the enclosure (Ill. 9) lies in ruins about 150 meters to the east of the north-east angle of the *Ḳaṣr il-‘Abd*. It stood at the end of a road extending north and south at the foot of the main terrace wall east of the great building. Its southern face preserves, in situ, a number of courses which are sufficient to give the width of the building itself and the opening in it; but the northern face of the gateway is completely ruined, and its dilapidation is so complete that it would be impossible to determine the depth of the gateway without removing a quantity of massive building stones. It was not a difficult matter to reach the threshold on the south side; the removal of a few fallen blocks and a little earth revealed the heights of the lower courses and the sockets for swinging doors just within the opening. The width of the doorway is 3.70 m., the width of the passage within the doorway is 4.16 m.;

the foundation course, on either side, projects to the width of the doorway and contains the sockets referred to above. The gateway was only an opening in a wall of crude and heavy stonework, dignified by a facing of highly finished ashlar, extending to a distance of 3.30 m. on either side of the opening, a similar facing within the passage, and presumably on the north side. It is this facing, which is preserved to a height of 3.92 meters on the south side, that attracts attention. The courses of the facing, five of which are in situ, alternating wide and narrow, are of equal height on either side of the opening. It is probable that the gateway was originally one or two courses higher than the ruin. The three lower courses, 1.05 m., 46 m. and 85 m. high, respectively, are smoothly dressed, and have exceedingly close joints; the two upper courses consist of blocks of draughted masonry, not rusticated; but having smoothly dressed faces within the draught; like the masonry of the *Ḳaṣr il-ʿAbd*. The height of the boss, or relief, within the draughting varies from less than a centimeter to 2.5 centimeters. The only suggestion of ornament in this part of the work consists of a band in relief, 15 centimeters wide and of 5 centimeters projection, that is executed upon



Ill. 9.

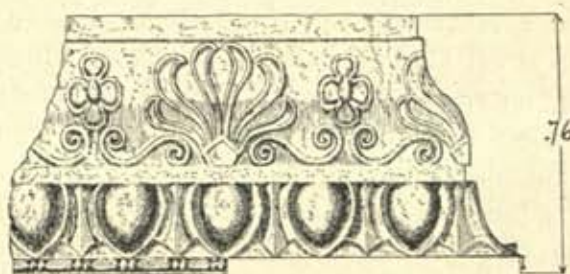
the jambs at a distance of 52 centimeters from the opening. Among the debris is a beautifully executed fragment of a cornice (Ill. 10) of quite classic design, that appears to have crowned the portal. An examination of the lower part of this fragment revealed that it was the left end of the cornice; but no parts of a frieze or other members of an entablature could be found (Ill. 11). For lack of an inscription, it is possible to form only a conjecture as to the date of this gateway; yet there is little about it that points to any definite period. The alternation of courses is reminiscent of Hellenistic work, like the stoa of Attalos at Athens, where the narrow courses are proportionately narrower. The carving of the cornice is certainly not Roman of any period that we know in Syria. It is Hellenistic in style and Oriental in execution, and undoubtedly belongs to the same period as the *Ḳaṣr il-ʿAbd*, i. e. the early part of the second century B. C.

GATE NO. II. The second gateway (Ill. 12) is situated about 100 meters to the south of Gate No. I, and on axis with it, near the southeast angle of the great

terrace wall which, at this point, is preserved to a height of nearly 3 meters. Of the gateway itself only the foundations and a few fragments remain upon the site, the remainder of the structure having rolled far down the steep slope into the valley of

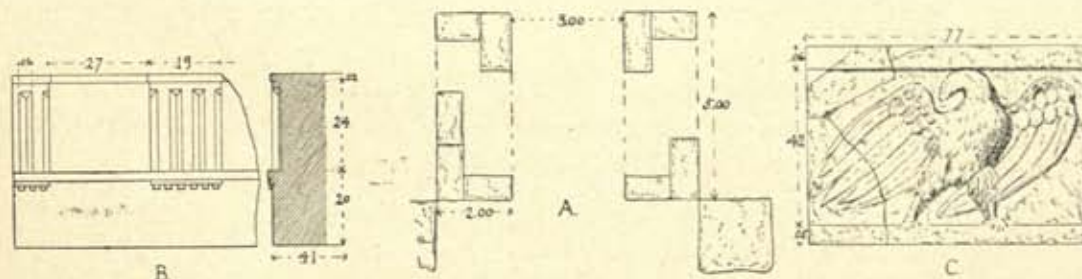


Ill. 10. Cornice of Gate N^o. I.



Ill. 11. Cornice of Gate N^o. I.

the Wâdi iṣ-Ṣīr. The foundations consist of a few well squared blocks still in place on either side of a road-way 3 meters wide: they formed the bases of two piers, each 2 m. \times 5 m., standing with their major axes parallel to the road (Ill. 12. A.). The road at this point was upon a terrace 7 meters wide, and the remains of massive terrace walls are to be seen, one above the road and the other below it, on either side of the gateway. The only remnants of architectural details lying in the immediate vicinity are three sections of a light Doric entablature (Ill. 12. B) aggregating 3.46 m. in length, with architrave and frieze executed upon the same blocks, fragments of a Corinthian capital for a half column with finely carved details, like the capitals of the upper story of the Kaṣr il-ʿAbd, a badly weathered section of a Doric half-column with sharp arrises, and, further down the slope, a triglyph block, 53 centimeters high and 46 centimeters wide, and a block, like an oblong metope (Ill. 12. C), measuring 53 \times 77 cm. with a well carved, though somewhat mutilated, relief of an eagle which reproduces the pose of the eagle on certain Ptolemaic coins. It would be quite impossible to form even a



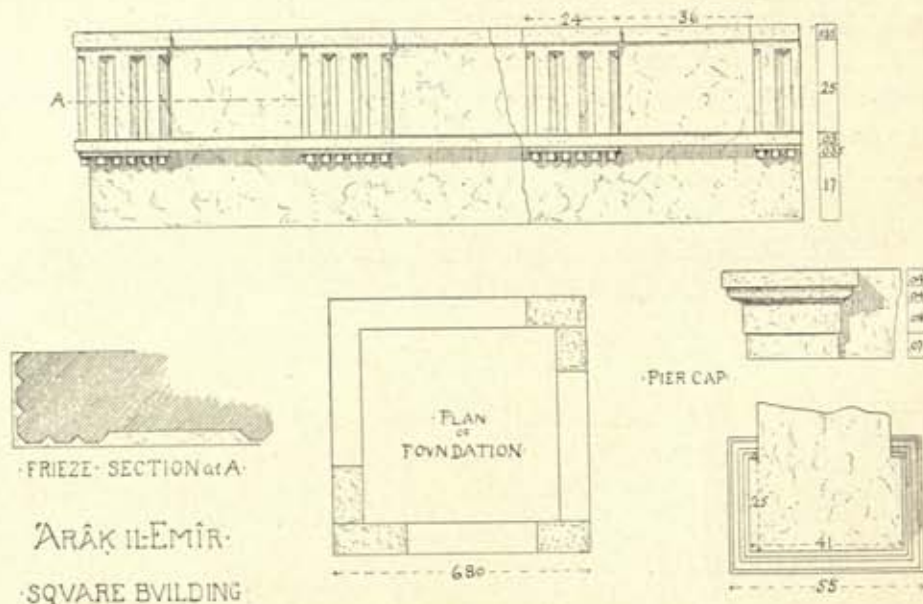
ARÂK IL-EMÎR.
GATE N^o. II.

Ill. 12.

conjecture as to the design or proportions of the superstructure of this gate from the details just enumerated. If the fragments all belonged to the building, it is apparent that the Doric and Corinthian orders were combined in this structure as in the Kaṣr

il-^cAbd. It is interesting to find here that, in one order at least, the triglyphal frieze was composed of separate blocks, as in Greek temples of the best period, even though the greater of the two Doric entablatures in the *Ḳaṣr il-^cAbd* shows its architrave, triglyphs and metopes all executed on the same blocks. The fragment of a Doric half-column with sharp arrises, though difficult to measure, appears to have been of the same scale as the large triglyph and metope. The lighter Doric entablature, in which the frieze is carved upon the upper half of the architrave blocks, may have rested upon the small Corinthian half capitals of which small fragments were found scattered about; for, as we have already seen in the great building hard by, there was no hesitation at placing a Doric entablature above Corinthian columns. It is of course to be borne in mind that the larger Doric order may have belonged to some other edifice; but no foundations of any sort, except enclosing walls and terrace walls, were to be found in the vicinity.

SQUARE BUILDING. To the north of *Ḳaṣr il-^cAbd*, at the top of the artificially graded slope above the lake, near the angle formed by two terraces, one extending east and west, and the other extending north and south, are the ruins of a small square building. The remains consist only of foundations and fragments of carved details; the quadrated building blocks seem to have been among the stones carried away at an early date, possibly for the interior partition walls of the *Ḳaṣr il-^cAbd*, and, as is often the case today in places where the ruins are being used as quarries, only the carved blocks, column drums and pieces of uneven shape were left upon the site. For this reason one cannot determine whether this structure was a tomb or an aedicula. The foundations, of good quadrated masonry, form a square of 6.80 centimeters (Ill. 13);



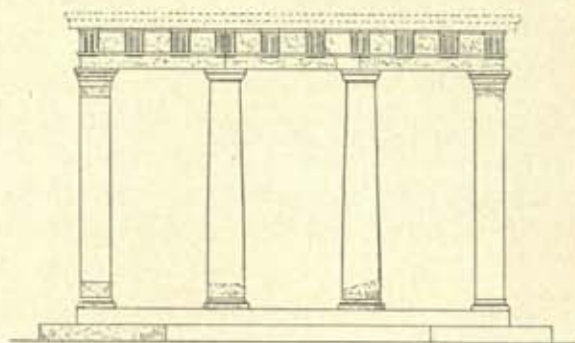
Ill. 13.

the details consist of the blocks of a Doric entablature, a moulded anta-cap and several unfluted drums of columns. The sections of the entablature measure 1.96 m., 1.97 m., and 1.24 m. in length; the last, however, is broken at one end, and undoubtedly was of equal length with the others, the three forming one side of the building 5.88 meters square. The foundations in situ then would have constituted a projecting step 46 cm.

deep all around the building. The superstructure is, in all probability, to be restored with three closed sides and a façade distyle-in-antis. (Ill. 14. B). The roof was perhaps a pyramid. An important detail is to be seen at the end of one of the blocks of the entablature (Ill. 14. A), where a corner triglyph is so carved that the outermost bevel serves for two triglyphs set at right angles. The proportions of the height of the frieze to that of the architrave give a preponderance to the former that departs from the best classic models of Doric architecture, but the treatment of the taenia, regulae and the cylindrical guttae is more Greek than Roman. All of the details here conform more closely to Greek canons than the details of the Hellenistic Doric tombs at Jerusalem, or the Pre-Roman tomb of Hamrath at Suwêdâ in the Ḥaurân, or, in fact, of many Hellenistic monuments in Syria and in Asia Minor in which the Doric order



A. Angle block of entablature.



B. Façade restored.

Ill. 14.

was employed. It is interesting to compare the form and details of this monument with a monument of the later Greek period in Asia Minor published by M. Reinach¹).

TERRACE WALLS. It has been noted, in the general description already given of this site, that a great deal of artificial grading was done, and that many great terraces were constructed upon the slopes both above and below the site of the chief building. It may well be that these terraces are to be identified with the gardens referred to in Josephus' description. None of these massive structures could be regarded in any sense as a part of a scheme of defense; some were connected with the construction of the artificial lake, others constituted the foundations of roads; but the greater number of them had to do with a magnificent scheme of what would today be called landscape gardening, i. e., the grading and formalizing of the rugged mountain slopes, and the laying out of symmetrical artificial plateaus and terraces either for the planting of trees and gardens, as suggested by Josephus, or for the building of a well ordered city. Beginning on the west side of the bed of the lake, we find the remains of a gigantic retaining wall which secured the lake against being filled up by the wash from the steep mountain side. The best preserved part of this retaining wall is a section over 20 meters

¹) *Voyage Archéologique en Grèce et en Asie Mineure*, Le Bas, Pl. Archit. II, 7.

long showing, above the soil, six courses, aggregating 4.50 meters in height. (Ill. 15). It is quite certain that several courses have fallen from the top, and that a number more are buried below the present level. The stones used in the wall are roughly quadrated; the two upper and three lower courses are about 75 cm. high. The intermediate course is 1.48 to 1.50 m. in height. The line of this wall may be traced in foundations and debris all along the western side of the basin. The great dam, some 250 meters long, extends from the mountain side on the west to an artificial plateau to the southeast of the *Qaşr il-ʿAbd*. It consisted of no less than three huge retaining walls, each about 3 m. higher than the one below it, and about 7 m. apart, with terraces between them. The middle and upper walls were connected at intervals by cross walls which extended at an angle from the top of one to the top of the other; the lower terrace appears to have provided a roadway. At the eastern end of this straight line of constructions, which may be regarded as the dam proper, the walls turn toward the northeast (see map) at an obtuse angle for a distance of about 100 m., and then turn, at another obtuse angle, a little west of north, for a distance of about 120 m., to Gate No. I, where they terminate. Within these last two sections is an artificial plateau some 50 m. wide, extending westwards to the lake, making the eastern and western shores about equally distant from the southeast and southwest angles of the *Qaşr il-ʿAbd*. The finest examples of these terrace walls are to be seen at the southeast angle and along the eastern side, between the gates. At the angle, three tiers of walls rise above the steep slope, and, from below, appear like the walls of some great ancient city. All are built of crudely quadrated blocks or of unhewn stone in courses from 70 to 90 cm. high. (Ill. 16). It was not possible to take a photograph showing the tiers of walls, one above the other at the angle, owing to the steepness of the slope. The walls of the high terraces above the site of the *Qaşr il-ʿAbd* are, for the most part, concealed by grading. It is evident that the outer edges of the terraces to the north and northeast of the lake are held in place by walls from the top of which the earth was evenly graded at a steep angle to the margin of the lake. Above these, lower retaining walls form broad level terraces rising one above the other to the base of the cliff on the north, and to the base of the spur where the modern village is, on the east: showing a vast amount of construction and grading that would have required either an enormous number of labourers, or a very long time for their accomplishment.

THE CAVES. The rock-hewn chambers have been carefully described and elaborately illustrated by Captain Conder¹, and M. de Vogüé² has published the most important of the caves; a further description of them would be superfluous here. It is not possible to say whether they were all excavated at the same period or not; the Hebrew inscription would seem to give an approximate date to the better executed of them, and would seem to connect them conclusively with Hyrkanos and his occupation of this site. The scant details of ornament in these caves, such as mouldings and door frames, seem to indicate a date earlier than the Roman period in Syria. The relation of the caves to the buildings below them is a matter that must remain more or less in doubt unless we accept, without question, the whole account given by Josephus, and assume that all the works at *ʿArâḵ il-Emir* were accomplished between the years 183 and 176 B.C.

¹ *Survey of Eastern Palestine*, pp. 67—78.

² *Temple de Jérusalem*, text, p. 42.

Arâk il-Emir.



Ill. 15. Retaining Wall East of Kâşr il-'Abd.



Ill. 16. Retaining Wall at Angle Southeast of Kâşr il-'Abd.

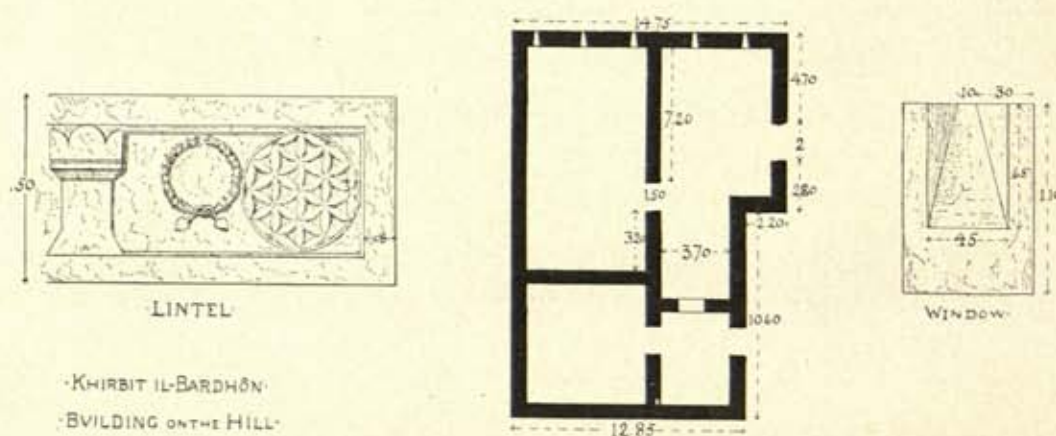
There is every indication that the caves were made to be lived in by men of a higher state of civilization than ordinary cave-dwellers, and for the accommodation of domestic animals. There is no evidence that they were used as places of burial; for they are without niches, arcosolia and sarcophagi, all the details, in fact, that distinguish the rock-hewn tombs of Syria from rock-hewn stables, presses and other places of domestic utility. That they afforded a safe retreat, and provided defense for their occupants, as described by Josephus, is very plain, and yet there were costly buildings in the region below the cliffs that were absolutely unprotected, so that it seems rather incongruous to think of the settlers of Tyros entrenching themselves and their domestic animals in well defended and almost inaccessible caves, and, at the same time, erecting magnificent structures, and laying out extensive parks which were to be left open to the attacks of any enemy that happened to pass that way.

THE AQUEDUCT. As has been pointed out above, the remains of an aqueduct may be traced, with a few breaks, from the edge of the high terrace just above the north-east shore of the lake to a point far up in the valley of the Wâdi iṣ-Ṣîr, where the bed of the stream is considerably higher than the highest part of the buildings at ‘Arāk il-Emîr, and higher even than the caves. At its lower levels this aqueduct appears in a series of stone conduits which lie in a line along the edge of the terrace above the lake, extending north and south. Each section of the conduit consists of an oblong stone, 1 m. to 1.50 m. in length, about 50 cm. wide and 40 cm. thick. In the upper face of each stone is cut a semi-cylindrical channel of about 30 cm. diameter. From the angle formed by the north and east terraces, the aqueduct may be traced by the appearance of occasional sections of the conduit in a northeasterly direction toward the cliff. Along the base of the cliff the stone conduit is hidden; but its place is taken by a crude aqueduct of modern construction which still carries water at certain seasons. The modern aqueduct joins the ancient conduit just beyond the end of the artificially scarped cliff. The ancient conduit here takes the form of an open channel cut in the natural rock, or of short borings through projecting points of rock. This rock-hewn channel is continued in the valley of the wadi, where it is cut out of the rock on the left bank of the stream as one ascends. At first, as one would expect, it runs high above the bed of the stream, but both ascend gradually to the same level far up the valley. At several points the aqueduct has been renewed and its course has unquestionably been altered at points, from time to time; for it has been in use for centuries and is still frequently employed.

Among the references to ‘Arāk il-Emîr, in addition to those already cited, may be mentioned the following; Tristram, *Land of Israel*, 1863. Duc de Luynes, *Voyage d'Exploration à la Mer Morte*, 1864; Vol. III, Pls. 30—33. Warren, Q. S. '69—'70 (I) 284—306. Northey, Q. S. '72, 57—72. Merrill, Q. S. '76, 47—55. Thomson, *Land and Book*, pp. 598—99. Oliphant, *Land of Gilead*, 280. Heber-Percy, *Moab Ammon and Gilead*, 51, 55. Le Strange Q. S., '85, 157—180. Post, Q. S. '88, 175—209. Séjourné, R. B. '93 (II) 119—144, and '94 (III) 615—627. Robinson Lees, *Geographical Journal*, '95, V. No. I. 1—26. Gautier, *Au delà du Jourdain*, pp. 57—61. Frank, M. N. D. P. V. '96 (II), 33—40. Hill, Q. S. '96, 24—46. Sykes, Q. S. '99, 47—56. Dalman, M. N. D. P. V. '00, 21—29.

2. KHIRBIT IL-BARDHÔN.

About fifty minutes ride up the wadi, above 'Arâk il-Emîr, on the right bank as one ascends, is a group of ruins of no great extent, but not without interest. The name of the place was given to us as Khirbit il-Bardhôn; it appears to be the site described by Captain Conder in his "Survey of Eastern Palestine", and marked upon his map as el-Bardawil. The ruins stand upon a high bluff around which the stream curves in an irregular semicircle. On the summit of the bluff are the ruins of an extensive villa or dwelling of some kind. To the southeast of this, on higher ground, are a number of rock-hewn tombs, chiefly of the kind which consists of a deep grave with an arcosolium on either side, and closed with a heavy sarcophagus cover. To the northeast, part way down the slope, is a grotto with a ruined porch in front of it. In the valley below, on the opposite side of the stream, there are ruins of waterwheel aqueducts, some of them of considerable antiquity, others of no great age, and the remains of what appears to be an ancient dam. On a higher level is a small village quite recently built by Circassians. The ruin on the summit of the bluff, and the portico of the grotto are worthy of description.



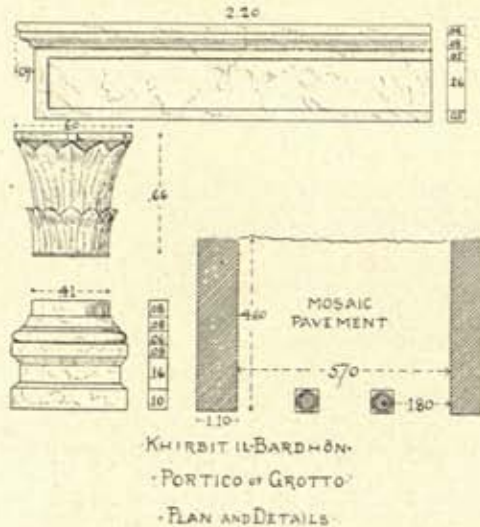
Ill. 17.

VILLA. The villa (Ill. 17) consists of foundations and walls, 1 m. to 1.75 m. high above the ground, from which a complete ground plan can be drawn, and a few scattered bits of architectural ornament. The plan shows a somewhat irregular outline, embracing two larger and two smaller apartments. The foundation course is preserved intact. The long south wall is preserved in two courses throughout the greater part of its length, and the west wall, preserving intact a second course, 1.10 m. high, is provided with a row of deeply splayed incisions, which formed the lower parts of loophole windows (see detail, Ill. 17) opening into the ends of the two larger apartments. A number of carved lintels lie in and near the ruins, but only one of them was sufficiently

well preserved to make a satisfactory sketch of it possible. This lintel (Ill. 17), one end of which is buried in the soil, was carved in low relief: an altar of the form commonly found in Ammonitis (cf. altar found in 'Ammân Ill. 42) occupies the middle of the lintel, and the sunken panel on the right is ornamented with a small wreath unsymmetrically placed, and a disc adorned with six-pointed stars produced by interlacing circles. The altar and the disc reproduce the forms of decoration found on many lintels in Northern Syria. These forms of ornament almost certainly give to the ruin a date earlier than the first appearance of Christian symbolism in Syrian art, yet it is not possible to say whether the carving was executed before or after the beginning of the Christian era; in other words, to say whether the work is of Roman date, or belongs to an earlier, Greek period. There are no mouldings in the ruins, and the kind of ornament shown on the lintel is not Roman in character, though it appears in Northern Syria during the period of strongest Roman influence. It is not to be classed with any of the ornament found at 'Arâk il-Emîr, yet it is native art, of a kind that flourished for centuries in Syria, but how early its beginnings were, one cannot yet determine. I incline to the belief that much of the native ornament that appears in work of the Roman period in Syria was of great age, and had flourished through the Seleukid period and, perhaps, for centuries before. If this theory be correct, the dating of monuments by means of ornament of this character is rendered impossible within several centuries. The problem of the purpose of this building is equally difficult of solution. A building small, but splendidly built, divided into compartments, lighted by loopholes and set upon a commanding point, with few other signs of man's handiwork near by, except tombs, would suggest a small castle, or perhaps a villa, in the midst of this beautiful hill country. But the occurrence of isolated abodes in ancient times in this region is rare, so far as my experience goes, and it is, of course, not impossible that the building was not so isolated in ancient times as it appears today, for there may have been a settlement of considerable importance in the valley below, where a few modern dwellings now stand which appear to have been built, in part at least, out of ancient materials.

GROTTO. The cave is now used as a store house by a native, and is provided with a crude front wall and a wooden door. In the absence of the owner I was unable to see the interior, but was told by other natives that it contained a spring, and was paved with mosaics. These statements were borne out by the presence of a minute stream that trickled under the door, and by the finding of a large section of rather coarse, white mosaic in front of the grotto. The foundations of two walls, which projected from either side of the grotto, were easily traced (Ill. 18): between them was the mosaic pavement, and between their ends were two column-bases with pedestals, one in situ, the other slightly out of its original place. Near by were a section of the shaft of a column of 40 cm. diameter, a capital of unusual form, and a section of architrave 2.20 m. long, 44 cm. high, and 38 cm. thick, or of about the same thickness as the diameter of the capital at its bottom. The details are of debased classic form, but without a suggestion of Christian origin. The pedestal is not unlike late third century pedestals found in various places in Syria, the mouldings of the base, (a torus below a flat cavetto), and the base of the shaft, without any apophyge, are all late features. The foliate capital, rather tall and narrow, has no character that could aid in fixing its date. The architrave is adorned with a sunken panel above which is a

cyma reversa below a plain fascia, and is unlike any Christian detail of the same sort that I have ever seen. The columns with their architraves would seem to have formed a portico, distyle in antis, nearly 8 meters wide, in front of the grotto with its spring. No inscription was found, and there are no other architectural fragments in the immediate vicinity: there is nothing, in fact, about the ruin to indicate whether the portico originally formed a sort of shrine before the cave, a little aedicula where an altar to some local



III. 18.

nymph may once have stood; or whether these architectural features were simply part of a spring-house, built by the owner of the spring to dignify a valued source of water. I have said that the details appear to be late; yet I do not feel that one is safe in assuming that any isolated building is late on the evidence of architectural details alone; for there is a singular resemblance between the early imitations of classic forms by oriental artists and the late, debased forms that follow the period of pure forms, as may be seen in certain details at 'Arâk il-Emîr. From the evidence at hand there is nothing to disprove the assumption that the ruins at Khirbit il-Bardhôn belong to the same general period as those at 'Arâk il-Emîr, though they differ from them in many important respects; yet, at the

same time, it cannot be denied that they may be later even than the Roman period of the second century of our era.

3. IL-MU'ALLAKAH.

This site, about 50 minutes up the wadi, above Khirbit il-Bardhôn, is unquestionably identical with that mentioned by Captain Conder¹, Dr. Geo. E. Post² and others, under the name of id-Dêr; the descriptions and sketches published by the two writers above mentioned apply, in every detail, to the interesting rock-hewn chambers, the name of which was given to us as il-Mu'allakah, "the suspended one" There are no other ruins of antiquity in the vicinity; a half ruined, quite modern mill and a native house, stand beside the stream in the bottom of the narrow valley. High up on the mountain side, on the right bank, as one ascends the stream, 50 meters or more above the bed of the wadi, is a sheer face of natural rock in which a broad space has been scarped back to a smooth face, and then carved to represent the façade of a three-story building (Ill. 19). The slope is well covered with a growth of scrub oak, with pines and other small trees in considerable numbers; but the steep cliff in which the artificial cutting has been made stands out boldly, and the rockhewn façade can be seen for miles up and down the valley. The ascent to il-Mu'allakah is not easy, though horses may be ridden most of the way up, and can be led up to the façade. In front of the façade is an open space, 5.80 m. wide, with a smooth, rock-hewn pavement, and side walls on either side falling back, as they ascend, to the face of the façade itself. A narrow doorway with a high threshold is the sole feature of the ground floor (Ill. 20). Above this appear the windows, the middle one open and unadorned; the side windows are closed with grilles of stone, and have moulded window caps. The face of the uppermost story is cut back from the lower face, like a long, sunken panel with mouldings all around. There are four windows in this story, those on the sides being open, while the other two are closed with slightly broken grille work. The crowning feature of the design is a heavy cavetto cornice which is badly weathered; above it a deep cutting in the rock extends across the whole façade, to carry off water descending from the mountain side, deflecting it on either side of

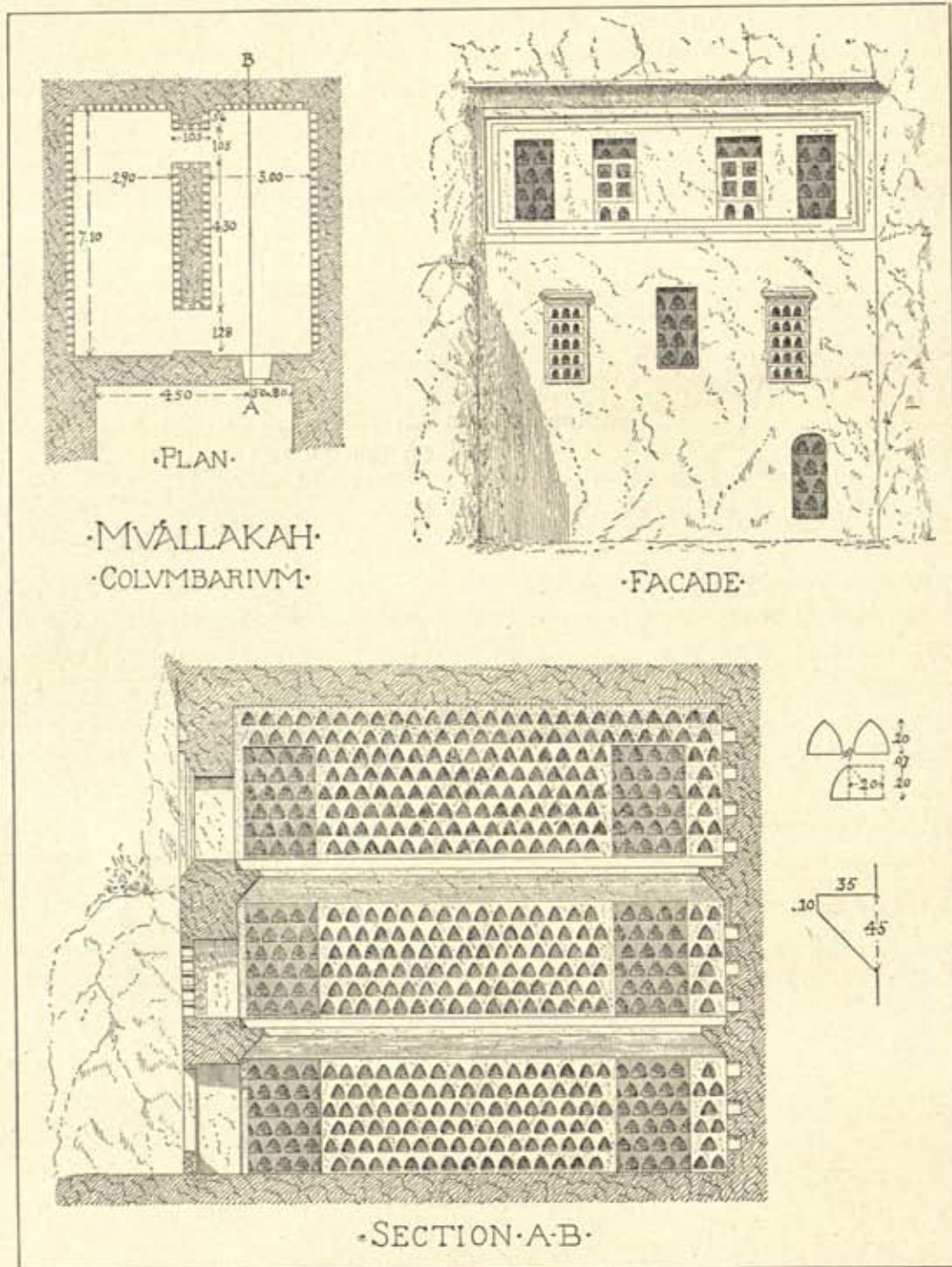


Ill. 19. Mu'allakah, from the opposite side of the valley.

¹ *Survey of Eastern Palestine*, pp. 94—96.

² *Q. S.*, '88, p. 193.

the façade. The two chief points of interest that strike one immediately on looking up at the façade, are the symmetry and accuracy with which the work was executed,



III. 20.

the fact that every part, even to the grille work of the windows, is a part of the living rock, and the appearance of remnants of colored plaster on the façade. Entering by the low, narrow doorway we find a great rock-hewn chamber, somewhat higher than the façade, with stories, corresponding to those without, and marked off by broad,

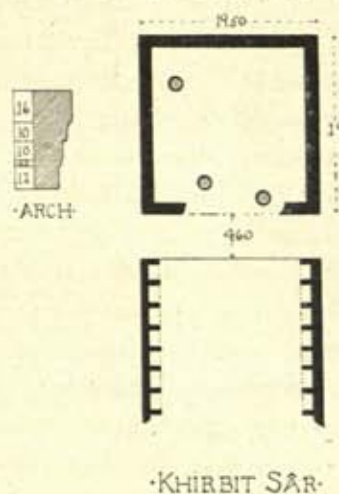
projecting corbel courses. In the wall, to the left as one enters, are two passages in each story, opening into a chamber exactly similar to the one first entered, the wall separating them being 1.05 m. thick, and of the living rock. The chambers are most symmetrically and exactly hewn, with perfect right angles and flat ceiling; the surfaces are all smoothly finished, and the corbel courses are cut with great precision. But the feature of greatest interest within the chambers is found in a series of small triangular niches with which every section of the walls is honeycombed. Each of these little niches forms an equilateral triangle of 20 cm. a side, the sides which form the legs of the triangle being slightly curved. Each niche is about 20 cm. deep; they are placed 8 cm. apart in rows, with about the same space between the rows, the apex of a niche in one row coming below the space between two niches in the row above. The ground floor has six rows of niches, the second floor also six, the third floor has eight rows. Not only are the main spaces of the walls provided with niches, but even the sides of the passages which connect the chambers are fitted with them, the whole number of niches aggregating about 2200. It will have been noticed at once, upon glancing at the illustration, that these chambers have every appearance of having been a columbarium; but one may not say, at once, whether the word columbarium should be here applied in its original, or in its restricted, technical sense. Some travellers who have visited the place do not hesitate to apply the term in its general archaeological usage, taking this to be a receptacle for cinerary urns. Captain Conder suggests that these niches were repositories for the skulls of monks who inhabited a monastery, no longer to be traced, which gave the name id-Dêr to the place. Dr. Post, on the other hand, accepts it at once as a dove-cote, and I can find no reason for not agreeing with him. It seems hardly probable that a funerary columbarium of pagan times would have been placed in this wild valley, so far from human habitation, or, at least, so far from any place of considerable size or importance. The Christians of Syria seem always to have buried their dead, and the preservation of the skulls of the inmates of a supposititious monastery, after the fashion of certain monastic orders in Europe within recent centuries, seems a rather fanciful idea; for, in cases where this has been done, the skulls are not preserved in separate structures built for their reception, but in the crypts, or chapels, of churches. The objection has been raised that these niches are too small to have made nests for pigeons; but a receptacle large enough to contain a human skull would certainly be sufficiently spacious for a dove's nest. It must be remembered too, that the wild pigeon of this locality is much smaller than the domesticated bird with which we are all familiar. The Wādī ʾiṣ-Ṣīr is today frequented by wild pigeons in great numbers; they nest in the crevices of the rocks on both sides of the valley, and would, I believe, be still nesting in this ancient dove-cote, but for the fact that the shepherds have built frequent fires in the chambers, and the walls and nests are coated with soot from the smoke. The numerous windows with their grille work, arranged in the middle story like the openings of a pigeon house, would have no meaning in a funerary chamber, but they would provide for the alighting and entrance of many birds at once, and are easily compatible with a dove-cote. The corbel courses suggest that originally there were intermediate floors, either of stone slabs or of wood, and the open windows which may have been provided with a portable grille, provided for the convenient cleaning out of the upper floors. It was, of course, necessary, for purposes of excavation, that some spaces should be left open on each level, and it is

marvelous that four open spaces sufficed for both chambers, when we stop to consider that every particle of excavated rock, some 6000 cubic meters, was passed out of these four small openings. The beginning of the work, the carrying of it to completion with such minute care, the cutting of the grilles as part of the living rock, all indicate a skill in excavating that is almost impossible of comprehension. Questions as to the origin and date of this monument arise without a hope of being satisfactorily answered. It is not difficult to understand that the inhabitants of an important settlement, even at some distance, should provide such a place as this for the raising of pigeons, because it would be natural to choose a locality already frequented by the wild birds, but it is not so easy to comprehend the reasons for expending so much time and labor upon a purely utilitarian undertaking so far from human habitation, or for desiring to make beautiful, by means of mouldings and colored plaster, a façade which would be seen by very few observers. These features would indicate that the work was done at one of those great periods during which everything was well done, but this gives no clue as to whether the work belongs to the period of the buildings at 'Arâk il-Emîr, or to one of the great building periods of 'Ammân, i. e. the Ptolemaic or the Roman period. The site is more easily approached from 'Arâk il-Emîr, and the grand scale of the work seems rather to connect it with the extraordinary buildings at that place; the mouldings too, so far as they are preserved, show profiles in keeping with those of the Kaşr il-'Abd and the smaller buildings about it. There are, moreover, at 'Arâk il-Emîr, cuttings in the rocks below the cliff, which resemble the diminutive niches of the columbarium. For these reasons therefore it seems not improbable that the great columbarium in the Wâdi iş-Şîr was made by the same hands that wrought the megalithic constructions at 'Arâk il-Emîr. The cultivation of the pigeon industry may have been either for sacrificial purposes, or solely for domestic culinary convenience. The catching of wild pigeons must have been very difficult in ancient times; for these most timid of birds are not easily taken even today with the aid of powder and shot, but if they could have been induced to nest in a specially prepared shelter, the matter of catching the birds and of regulating the slaughter would have been easily settled.

4. KHIRBIT ŞAR.

At the very top of the mountain range between the Wâdî iş-Şîr and the Wâdî 'Ammân, with a wonderful view of the mountains west of Jordan on one side, and of the apparently limitless desert on the other, is a large ruin, parts of which are of undoubted antiquity. The remains consist of a high wall forming a square of about 20 meters, built, in rather crude fashion, of huge rough blocks of the flint conglomerate peculiar to the country, and surrounded by a mass of broken and half buried walls of rude workmanship and of various ages, from a period of considerable antiquity to a comparatively late Mohammedan date. These ruins are described by Captain Conder¹ under the name of Khûrbet Sâr.

The north, west and south walls of the square building (Ill. 21) are preserved to a height of from three to four meters; only the ends of the east wall, where the entrance must have been, are standing. Within the building are four large column-bases of good classic form, not in situ, and fragments of column-drums, capitals and other details. Toward the east the side walls of the building are prolonged in masonry of a wholly different character, to form a sort of courtyard, the east end of which is buried in soil and debris. These side walls are about two meters thick, are constructed of highly finished quadrated masonry, and contain a row of arcosolia, 1.60 m. long and 1.15 m. wide, on either side; fourteen of these are partly visible in the ruins, seven on the north and seven on the south. The archivolt of the arcosolia have mouldings of rather late Roman profile. The sarcophagi under the arches contain ancient bones that have been quite recently disturbed by the Circassians who have destroyed the building. The original purpose of the building cannot be precisely demonstrated. It is apparent that the square building, with its crude and massive walls, represents a structure of great antiquity, probably a shrine, which was renovated or restored by builders of the Roman period, by the introduction of classic columns and an entablature on the interior. The arcosolia are manifestly late, judging by the profile of their mouldings, yet not Christian, if the absence of Christian symbols may be regarded as evidence. This site has been identified by Dr. Merrill² and others with ancient Jazer mentioned in Numbers, XXXII, 1.



Ill. 21.

¹ *Survey of Eastern Palestine*, p. 153.

² *East of Jordan*, pp. 404, 484.

5. 'AMMÂN (*PHILADELPHIA*).

'Ammân, the site of the Syrian Philadelphia, and of the still more ancient Rabbath Ammon¹, is well known through books and articles published by many travellers during the past century. Plans of the ancient city have been made, and the greater number of its buildings has been described with more or less correctness of detail, in one publication or another; yet no attempt has hitherto been made to publish a complete corpus of the antiquities still in existence here. It was not the original plan of our expedition to undertake an exhaustive study of these ruins; indeed such an undertaking would be quite impossible without extensive excavations which this expedition was not prepared to carry out. It was only upon our arrival, and after a general survey of the site, when it became apparent that the ruins had suffered great depredations since the last publications of them were made, and were likely to perish entirely under the hands of the recent Circassian settlers, that we determined to measure, as thoroughly as possible, all the ancient remains visible above ground, and to publish them together. Our hope, in doing this, was that by restudying the monuments already published, and by publishing with them a few unpublished remains, we might present a record of the antiquities of the city as they are today, while their rapid dilapidation is in progress, trusting that these records may be of use, after much that is now above ground has disappeared, in case the site should ever be excavated.

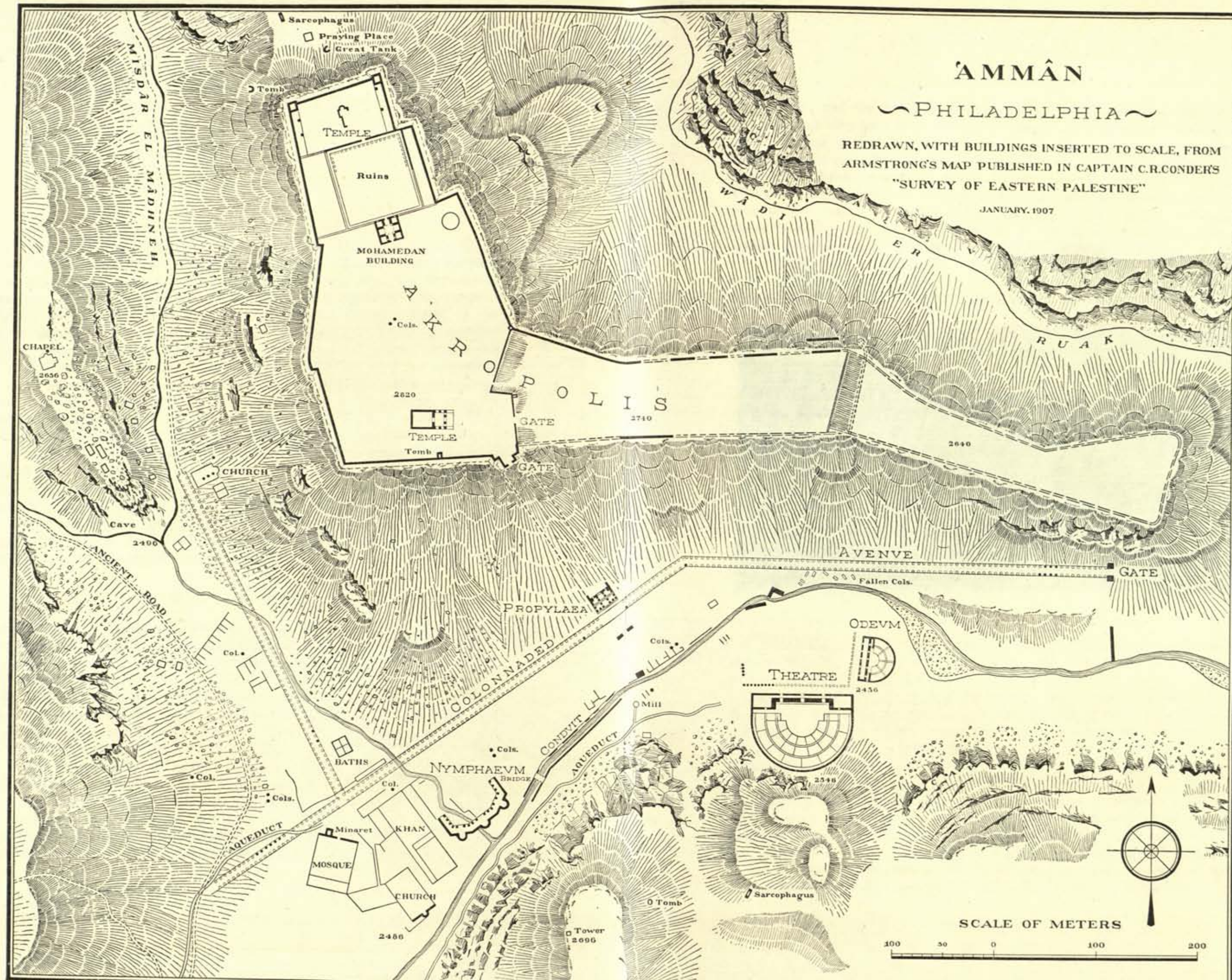
Description of the Ruins.

The ruins of ancient Philadelphia have two distinct divisions, those of the Akropolis, which were destroyed during the middle ages, and those of the lower city which appear to have been in a marvelous state of preservation until comparatively recent times. Not any of the remains now visible are earlier than the Roman period, unless, perhaps, parts of the akropolis walls may be assigned to an earlier epoch; the Christian period is scarcely represented, and there are few buildings of mediaeval Mohammedan workmanship, though one of those which remain is of more than ordinary interest. It is the great period of Roman influence in Syria, then, that provides material for study here, the period so splendidly represented at Djerash (*Gerasa*) and at Ba'albek; and as one examines more closely these ruins of Philadelphia, he is more and more convinced that, at the height of their glory, there was little difference in architectural splendour, between Philadelphia and Gerasa, though the one preserves so much, and the other so little of its ancient beauty. At Djerash the small mediaeval town, still inhabited, was established at a distance from the monumental part of the ancient city, across a

¹ *Deut.* III, 11. 2 *Samuel*, X, XI, XII, et. al.

~ PHILADELPHIA ~

JANUARY, 1907



deep ravine; and the columned streets, the temples, the theatres, and the triumphal arches, though they have fallen prey to earthquakes, were spared that form of vandalism which converts ancient buildings into quarries. The modern village of Djerash, like ‘Ammân, is occupied by Circassians; but the ancient baths and walls on the east side of the valley have, so far, provided the building materials necessary for their dwellings. The great buildings on the opposite side of the wadi are more or less protected by their position, yet I have seen groups of village youths engaged in dislodging great stones from the walls of the propylaea for the delight of seeing them crash down the hill-side, making a roar and raising dust like the discharge of artillery.

At ‘Ammân, on the contrary, the mediaeval town and the modern village (Ill. 22) have always been more important, and the site of the lower city has been inhabited through all the centuries since its foundation in most ancient times. The akropolis



Ill. 22. View of ‘Ammân from the West.

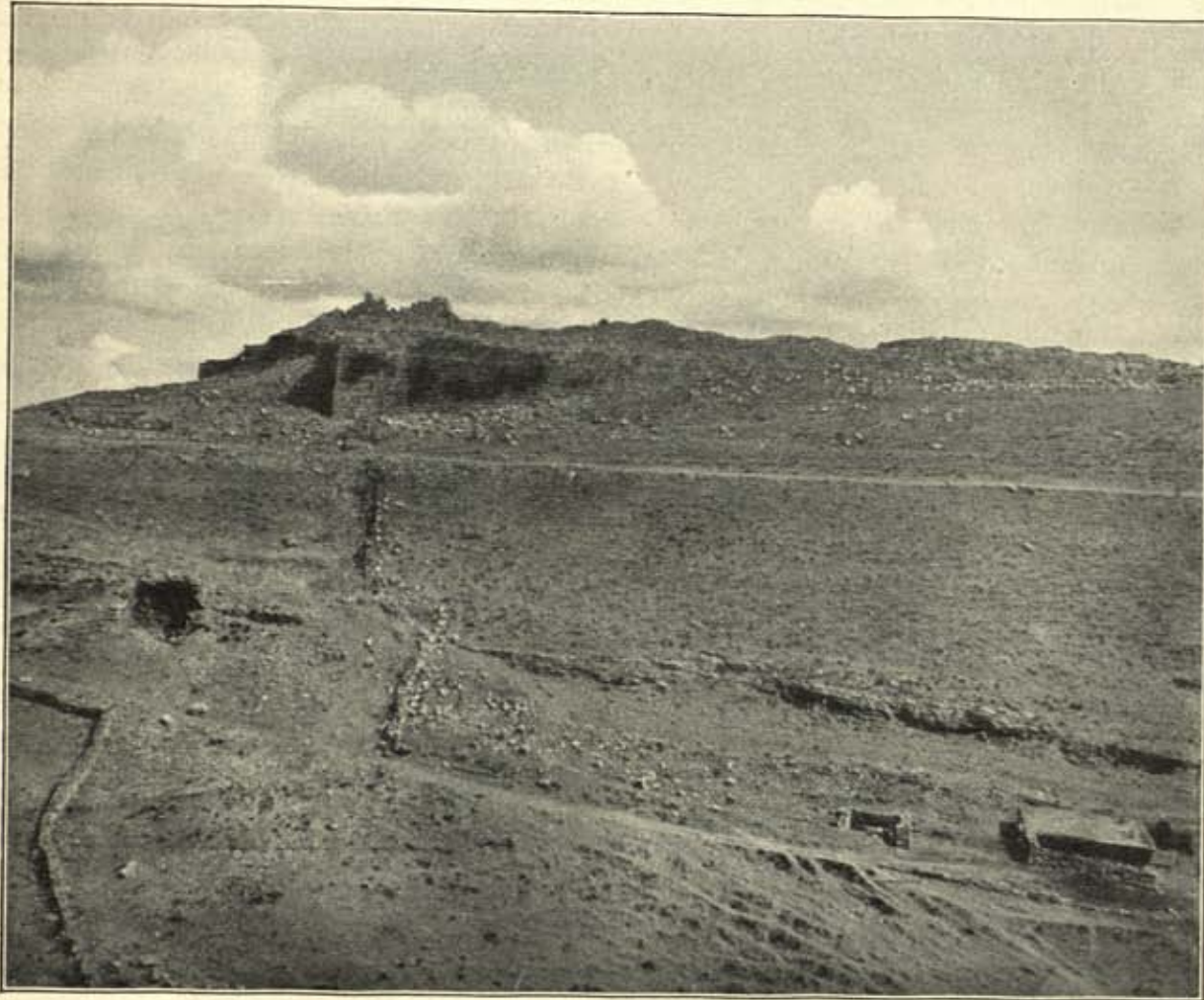
was fortified at an early period by the Moslems, and the temples and other buildings were undoubtedly demolished at that time; the main street of the modern village follows, in many places, the line of the ancient avenue of columns. All the ancient buildings still standing are occupied by modern houses, and every day sees some parts of the old walls that are not doing service as parts of modern dwellings, broken up and carried away. Even the theatre has been encroached upon, the recess, or tribune, at the top of the cavea being inhabited by a Circassian family. The akropolis of Philadelphia (see map) occupied a high, oblong plateau on the north side of the lower city which stretched through a narrow valley, in the bed of which a fine stream runs. The akropolis was artificially divided into three terraces on different levels, the westernmost of which, towering above the city, was the site of the temples and other important buildings. Here are to be seen the foundations and fallen columns of a great temple, the foundations, broken walls and fallen details of a building with a large peribolos, at the extreme northern side of the terrace, besides traces of a gate of entrance and of foundations of several small buildings. All of these are of Roman date; the early

Moslem period is represented by a small square tower at the south side, and by a fine monumental gateway, sometimes described as a tomb, near the centre of the plateau. The lower terraces of the akropolis seem not to have been occupied by large or important buildings; but the great number of potsherds to be found over the surface would indicate that they were inhabited for long periods. The greater part of the lower city was built upon the north side of the river, and upon the slope of the akropolis, and extended for a considerable distance up another valley which branches to the north at the west end of the akropolis. The south bank of the river is rocky and precipitous throughout the greater part of the length of the city, and was not suitable for building sites, except near the east end of the city, where the steep wall of rock turns back from the stream providing space for the theatre, the odeum, and several other structures immediately west of the theatre.

The main avenue of columns (see map) stretched from one end of the city to the other, on the north bank of the stream, at varying distances from it, and at a level of from 4 to 8 meters above it; the difference of level naturally increasing down the stream. A second colonnaded street joined the main avenue near its western end, and extended up the valley that opens toward the north. These colonnades, well described by earlier travellers, are now barely traceable; the only portions which still stand being in places where one or more of the columns has been built into a modern house, or where a part of the ancient pavement is utilized for a modern courtyard. Four large buildings of the lower city are still to be seen in part, at least; but the modern town encroaches upon them on all sides, and most of them are filled up with modern constructions. The theatre alone is in a good state of preservation; but here the stage buildings have completely disappeared, and only scanty foundations are traceable; but this seems to have been the case 80 years ago, when the Count de Laborde made his drawing of the theatre. Other buildings that were well preserved 25 years ago are today hardly to be recognized. The odeum has been completely torn down, with the exception of its façade, which preserves one story. A huge building beside the river, variously described as *thermae*, as a basilica and as a *nymphaeum*, now preserves less than two-thirds of what was described by travellers not long since. An edifice on the hillside below the akropolis, often mentioned as a temple or part of a forum, is marked only by fragments of its façade and a single column. The long wall in front of the present mosque was probably the north wall of an early church destroyed in Mohammedan times. A small building near the west end of the town, which was probably a tomb or a small shrine, shows only its podium and a small part of its west wall engaged with modern buildings. The splendid tomb outside the eastern gate of the city, long known as *Ḳabr is-Sultân*, and first published by M. de Laborde, has completely disappeared; the older Arab inhabitants, and the Bedawin, remember it, but many of the Circassians seem not even to have heard of the name. The great work of Roman engineering skill in Philadelphia, i. e. the great vaulted conduit through which the river was carried from one end of the city to the other, is still to be traced in side walls for a hundred meters or more, and one small section of the stone vaulting is in place. A small bridge of three arches still spans the river at the western extremity of the town. All the walls of the lower city have perished; it is impossible to trace even the line of their foundations except at one or two points.

AKROPOLIS WALLS. The first and second terraces, that is to say the westernmost

and middle sections, of the akropolis are built up on fine examples of masonry. The high south wall, towering above the modern town, appears to have been restored in places during the middle ages; the west wall is concealed throughout the greater part of its length by soil and rubbish that have washed down from the level above; but its northern end stands up boldly, all in its original state (Ill. 23). The northwest angle has the form of a redoubt or tower, and the north wall adjoining it extends eastward for 60 meters to another tower, where it turns south, and, after breaking out



Ill. 23. Akropolis of Philadelphia, northwest angle.

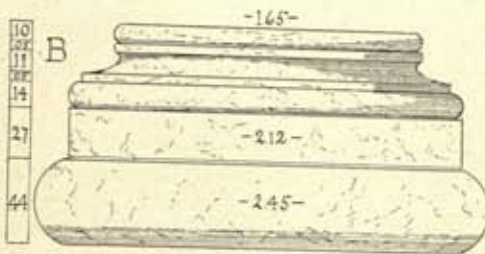
in two right angles, runs eastward along the middle terrace. The entire northern section of the akropolis wall, including the northern end of the west wall, constitutes one of the finest examples of ancient fortifications in existence. The lower courses incline inward in steps of heavy, well jointed, rusticated stone-work with draughted edges. Above this the wall is of smooth *opus quadratum* of excellent quality. In the first interior angle on the north side, is a stairway, now choked with soil and debris. The stairs led down from the end of a portico that bisected the upper terrace, to a small postern in the outer wall. The lower, or easternmost, terrace was built upon masonry of cruder workmanship, of the same quality as is to be seen in the terrace

walls at 'Arāk il-Emir. The walls are lower; but their lines are straight, and their angles are true right angles; it is only the quality of the masonry that differs from that of the higher terraces. It is not possible to assign a date, either to the quadrated walls of the upper terraces, or to the cruder coursed masonry of the lower section of the akropolis. The latter may be of very great antiquity, yet there are no marks about the crude, almost Cyclopaean, masonry, that characterize it as definitely early or late. It is almost certainly not of Mohammedan origin: I know of no walls of this character in all Syria that belong to the mediaeval period, and, indeed the fortified portion of the akropolis was certainly much smaller in Mohammedan than in Roman times. It is difficult to know if the Romans ever built retaining walls of this sort; but we have examples of wall building of this kind at 'Arāk il-Emir, which quite certainly belong to the Pre-Roman, or Seleukid, period. These crude walls may very probably belong to the time of Ptolemy's work at Philadelphia; yet, on the other hand, they may date back to the days of ancient Rabbath Ammon. The quadrated walls are probably Roman, though, here again, there are no definite means for determining whether the work is Roman of the second century A. D., or Hellenistic of the second century B. C. Certain it is that the well preserved section of the wall at the north end of the first terrace, was built before the Roman building that stands in ruins above it; for the building with its peribolos was exactly adjusted to the site as defined by the walls. Yet one may not assert with assurance that this part of the walls was constructed immediately before the erection of the edifice above it; for the edifice may have been planned to conform to the outlines of a platform erected many years before. There can be no doubt that draughted masonry was employed by Greek builders in Syria in the second century B. C., and there is abundant proof that it was used by Roman builders as late as the second century of our era, especially in military constructions. In the later military architecture, of the Christian period in Syria, draughted masonry is generally of a different character, blocks with draughted edges being mixed with ordinary smooth quadrated blocks, which probably indicates a second use of the draughted blocks. There are many examples in the Ḥaurān in which a castle or tower of the Antonine period, in draughted masonry, was renovated or rebuilt in the fourth century with an admixture of smooth blocks.

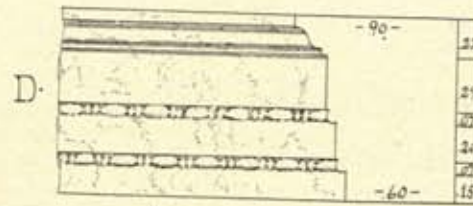
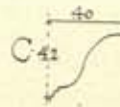
THE TEMPLE¹. The ruins of the great temple of the akropolis are situated near the southern end of the uppermost terrace (see map), but its position was not exactly symmetrical with regard to the walls of the akropolis. The temple did not occupy the highest part of the first terrace, unless, perhaps, the mound to the north of it, is composed of ruined buildings of a later period. It stood nearer to the south wall than to the other walls, and, for this reason, was probably visible from the city immediately below. The building faced eastward. The plan (Ill. 24) was prostyle, tetrastyle, with one column on the return on either side; the antae consisted of half columns. The ruins show conclusive evidence for this reconstruction of the pronaos. The entire front wall of the podium is in situ together with seven meters of the north wall of the podium, adjoining the front wall. Upon these walls stand the massive bases of the two middle columns of the pronaos, and the base of the column on the return on the north side.

¹ Capt. Conder published a minute plan of this temple, with a profile of one of the column-bases, cf. *Survey of Eastern Palestine*, p. 32.

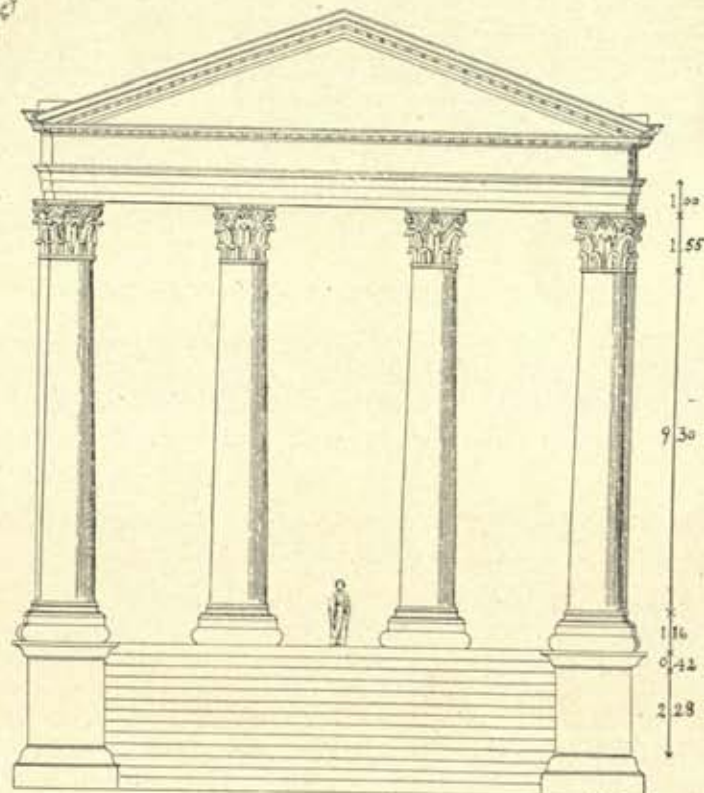
AMMAN.
TEMPLE.



BASE.



ARCHITRAVE.



The bases of two half columns lie near by, and the drums of the columns of the pronaos lie as they fell. The whole column of the southeast angle is practically intact (Ill. 25), its drums having fallen in perfect order from base to capital, making it possible to ascertain the exact height of the columns. Sections of the heavy cap moulding of the podium are to be found on all sides. Blocks of the architrave are visible on the surface; three of them bear fragments of an inscription¹ which indicates that the temple was built in the reign of Marcus Aurelius. Beyond this nothing can be known with definiteness about the plan or details of the temple. The cella, with the part of the podium below it, has entirely disappeared, so that it is impossible to determine the length of the building. Excavations might reveal foundations that would furnish further data, but, for lack of present evidence, I have restored the plan according to the proportions given by Vitruvius, and have made the length of the cella one fourth greater than its width. The details, so far as they remain, show that the temple was



Ill. 25. Temple on the Akropolis, view from the South.

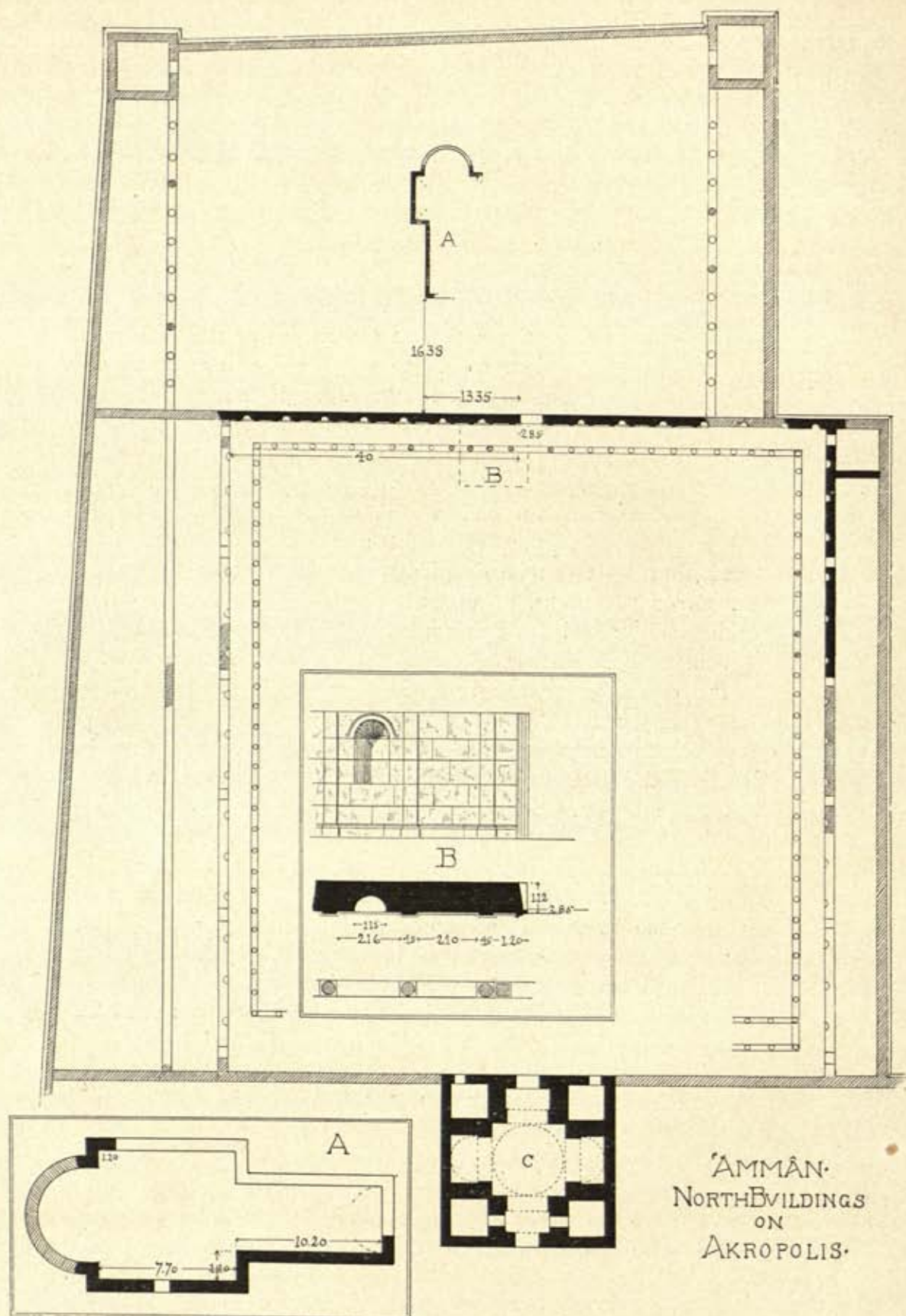
of the same general style as the great South Temple at Djerash which was a peripteros, and the inscriptions on both indicate that they were built at about the same time. Fragments of a carved frieze and cornice, built into the restored portions of the south wall of the akropolis, bear a strong resemblance to the details lying in the ruins of the South Temple of Gerasa.

In illustration 24 I have given (A) a drawing, to scale, of the temple in its actual state as seen from the east, and (E), the plan in its present condition. From these drawings it will be seen that almost every block of quadrated stone has been carried away, and it was apparently only the difficulty of removing the huge bases that are still in situ, that prevented the spoliation of the blocks below them. All but a few blocks from the sides of the podium have disappeared, with the entire structure of the parotids and the steps in front. That these existed is proven by the fact that the east face of the wall below the column bases is unfinished. It is worthy of note that this wall is constructed of alternate courses of headers and stretchers. The restoration (Ill. 24 G.) is based upon measurements of the height and width of the podium, of

¹ Div. III, insc. 4.

the columns and of the architrave. The height of the podium, exclusive of its base moulding, is readily obtained; it is 2.70 m.: the detail of its capmoulding (C) is also given. The bases are of unusual form, but have large square pulvinated blocks below their regular plinths. The fragments of the shaft of one of the fallen columns aggregate 9.30 m. in height. The capitals were made in two sections, the lower 70 cm. the upper 85 cm. high and 1.60 m. wide at the top: the capitals are of the form and proportions generally found in the Roman ruins of Syria. The architrave, 1 m. high, has the usual three bands, separated by bead-and-reel mouldings 7 cm. wide. Thus far, the restoration, above the base moulding of the podium, is easily authenticated by the material at hand. The bases of the half columns that formed the antae show that there were pilasters, adjoining the antae, at the angles of the cella wall. In an elevation these pilasters would project so as to require *ressauts* in the entablature, which would extend beyond the ends of the entablature of the tetrastyle porch; and thus I have represented them. Above the architrave, all must be conjectured. I have added a frieze and cornice, proportioned to the architrave as are those of the South Temple at Djerash; the angle of the pediment is taken from the same source.

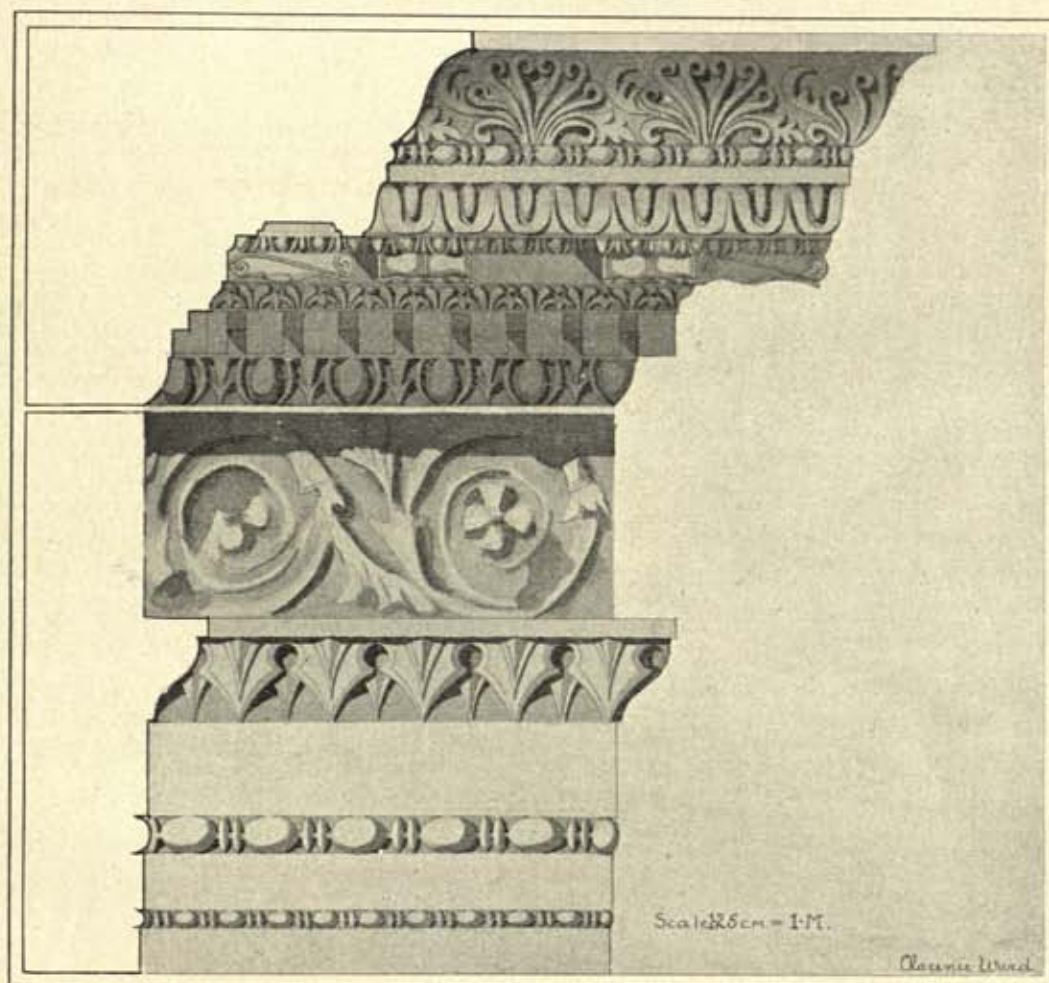
NORTH BUILDINGS. The northern end of the uppermost terrace of the akropolis is occupied by a group of ruins that represent a complex of buildings (Ill. 26) so completely destroyed that little can be definitely determined about their plan, arrangement or purpose. Near the centre of an enclosure bounded on the west, north and east by the akropolis walls, stand the half ruined walls of a long building terminating toward the north in an apse (Ill. 26 A). South of this building a wall of finely dressed and very white stone extends from one side of the terrace to the other, forming the fourth side of the oblong court about the ruined building. The south face of this wall is ornamented with pilasters and niches, and, in front of it, stood a colonnade, terminating at its east end in an angle tower of the akropolis wall. Near the middle of the wall was a large portal. Southward, from the ends of the stoa thus formed, walls six meters within the walls of the akropolis, extend for a considerable distance to a second cross wall, forming a square peribolos or outer court. The two side walls of this court were treated, like the first cross wall, with pilasters, niches, and a colonnade, and it is possible that the south wall corresponded in treatment with the others; but this side of the court was completely destroyed in early Mohammedan times when the present gateway (C), which occupies the middle of this wall, was constructed. All the space within the peribolos, and within the inner court about the ruined building, is filled with great quantities of debris composed of broken stones and architectural details, showing that extensive buildings of great beauty occupied the site. The building in the inner court has a broad apse toward the north (see separate plan A, Ill. 26). In front of the apse was a nearly square compartment (9 m. \times 7.70 m.), which seems to have been covered with a cross vault of masonry. Southward from the square compartment extended a long, narrow hall (10.20 m. \times 4.60 m.), which was roofed with a barrel vault of dressed stone. The springers of this vault are still in place on the west side. The ruins to the east of this building are very extensive, and I believe that the chief portion of the edifice stood in this place, on axis with the portal in the enclosing wall; but the great amount of debris that lies piled up on the site, makes it impossible to trace the ground plan further on that side without extensive excavations. It is not difficult to restore the peribolos, with its colonnades, from fragments of details lying



Ill. 26.

Note: The outer walls of the Akropolis are not accurately drawn to scale.

on the spot; yet the great mass of material within the enclosure would seem to indicate that there were buildings here, the plans of which are hidden in the ruins. It is possible, however, that this material was brought here from other parts of the akropolis, during the middle ages, for the construction of rude houses which have now desintegrated. The fine, white limestone of which the walls and colonnades of the peribolos were constructed, has weathered badly, yet a few of the niches show a refined design with well executed conches, and simple face mouldings. A few sections of architrave, and of frieze and cornice, that have fallen in protected positions, preserve

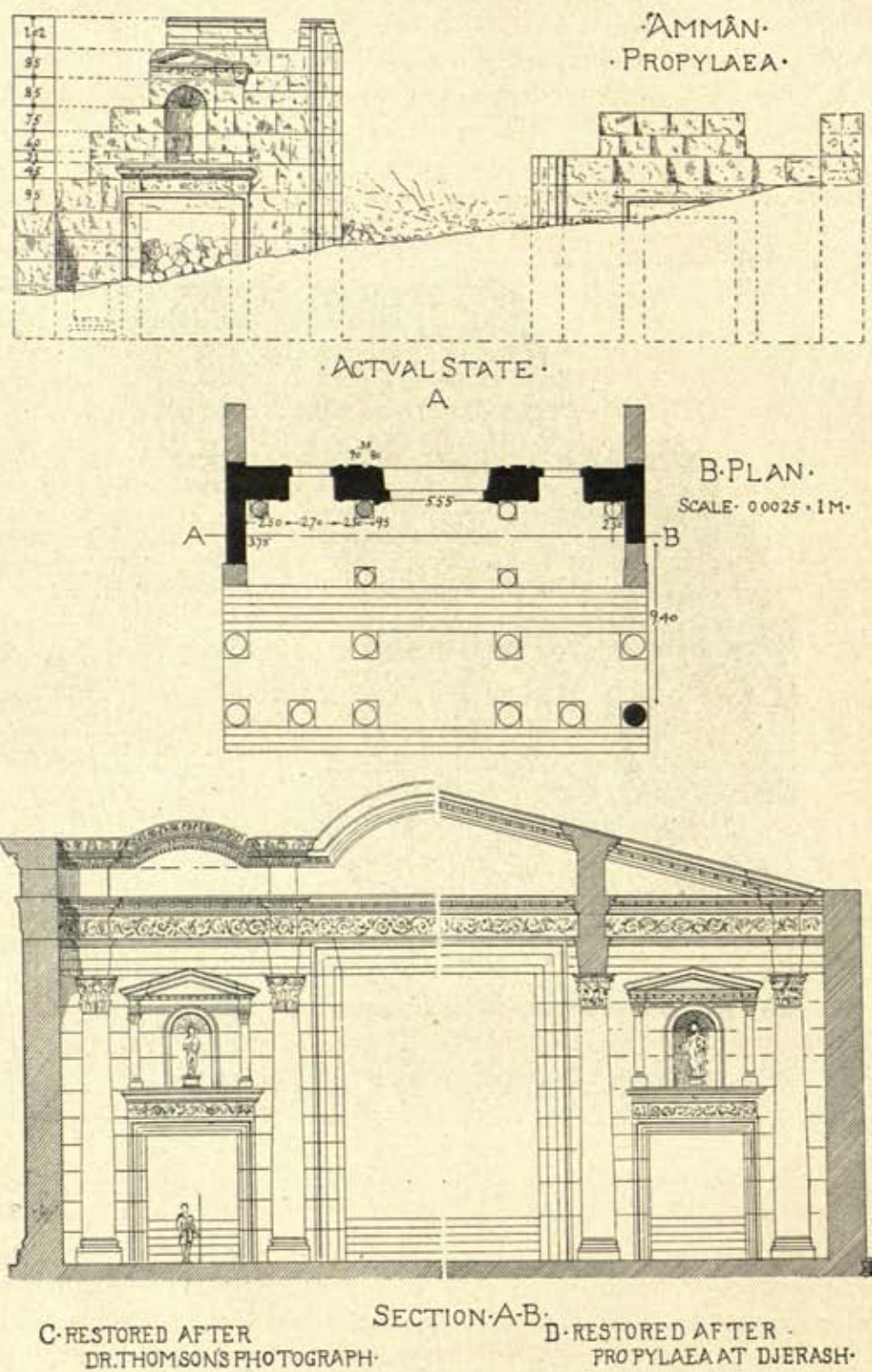


Ill. 27.

their rich details of carving in great perfection (Ill. 27). The proportions of the entablature are rather unusual, though quite pleasing, and the carved ornament, in various patterns, is uncommon and very rich. The capitals of the columns are all badly weathered, but they seem to have been of the style ordinarily employed in this region. The details give every indication that the structure belongs to the period of the Antonine emperors, probably of the same date as the Great Temple.

PROPYLAEA. The first building below the akropolis, in the lower city, is represented by a ruin on the slope below the south wall of the akropolis, standing on higher ground than any other of the ancient buildings. It has been described as a temple

by several travellers; but the only attempt to make a publication of it was made by



III. 28.

Capt. Conder¹ who gives a sketch plan, and who, in view of the presence of several

¹ *Survey of Eastern Palestine*, p. 37, photograph opp. p. 32.

columns which stand at varying distances from it, conjectured that it might be the remains of a forum. The ruin consists solely of a wall, 2 m. thick, and about 25 m. long, lying northeast and southwest, with two short walls projecting from its ends toward the southeast. Opposite the end of the easternmost of these short walls, at a distance of 9.40 m. stands the lower half of a large column, of 1.20 m. diameter. These fragments constitute the plan of the structure as it stands today (Ill. 28). The wall is buried to a height of 4 m. at its eastern, and over a meter at its western end (Ill. 28 A); the western section retains almost its full height, in part at least; for it is capped by a section of architrave; the other end preserves hardly more than half of



Ill. 29. Propylaea at Djerash.

this height. It is to be observed that the wall has three openings in it, a wide portal between two narrow ones, and that both faces of the wall are richly ornamented with orders of pilasters, niches with pediments above them, and finely carved door caps. Such ornaments are rare in the interior of temples in Syria. It is further to be noticed that the line of the axis of the central opening in this wall, if produced toward the northwest, would cut through the centre of the ruined gate of entrance in the akropolis wall (see map). It was this fact that suggested to me that the structure constituted the lower propylaea, situated, as it is, near the main avenue of columns, and that from this point a flight of steps ascended to the gate in the wall of the akropolis. I was further convinced in my opinion in making a comparison of this ruin with the far

better preserved propylaea before the prostyle temple, on the colonnaded avenue at Djerash. The arrangement and proportions are identical, and there is a great similarity in architectural style between the two buildings (Ill. 29). The large, free-standing column may then be considered as the corner column of the porch before the propylaea (see plan), the walls projecting from the main wall, as antae walls corresponding to those at Djerash. But the propylaea here are set on a level considerably higher than that of the avenue, and it was necessary to place a flight of steps between the porch and the portals. This involved the necessity of employing a larger and a smaller order of columns for the porch and for the portion of the propylaea between the antae, in order that the levels of the exterior and interior entablatures might be the same. Capt. Conder's plan shows small columns standing just free from the wall on either side of the openings; and the illustration¹ published by Dr. Thomson shows these columns in situ with the broken entablatures and raking cornice above them. I found but a single drum of a column, 98 cm. in diameter, protruding from the soil in the angle on the left, and a break in the architrave on the left of the central opening, showing that a beam of the architrave had originally projected forward (Ill. 28 A). These details are employed in the restorations here presented (Ills. 28 C and D). Of the wall, with its doorways, its niches and pediments, there can be no doubt: the columns are restored from the position and proportion of the column drum in situ in the angle; the frieze and cornice, and the arrangement of the raking cornice and projecting entablatures are copied from Dr. Thomson's photograph and from similar details in the propylaea at Djerash. Dr. Thomson's illustration shows a superimposed frieze and cornice above the regular entablature which breaks out in two ressauts on the same level, with an elliptical arched section of the cornice between them (Ill. 28 C), and suggests no provision for a raking cornice or pediment. The photograph of the propylaea at Djerash, on the other hand, shows a complete raking cornice, and no member is interposed between it and the entablature. The outer porch was probably hexastyle with a broad middle intercolumniation which carried an arcuated architrave, like that which lies in perfect order upon the ground before the propylaea at Djerash. The capitals of the columns of the porch were set on a level with the top of the interior architrave, if the arrangement at Djerash were followed, and this would make the semicircle of the soffit of the great arched entablature in the porch, of the same diameter as the outer semicircle of the cornice of the interior arched entablature (Ill. 29 C), so that a ceiling, flush with the soffit of the outer arch, would rest upon the cornice of the interior arch. Of the other free-standing columns which are to be seen among the modern houses and ruins in the vicinity of this ruin two, judging by their dimensions, unquestionably belonged to the colonnaded street, the others mark the sites of ancient buildings that have perished. I am convinced that they had no connection with the ruined wall which I have identified as the remains of the propylaea.

COLONNADED STREETS. Two avenues of columns, as has been stated above, may be traced in scanty remains in various parts of the city. One of these was the great street that extended from the east gate to the west end of the town, the other led out of the main street, and extended up the valley that opens toward the north (see map). The course of these avenues may be traced, in a general way, by the great

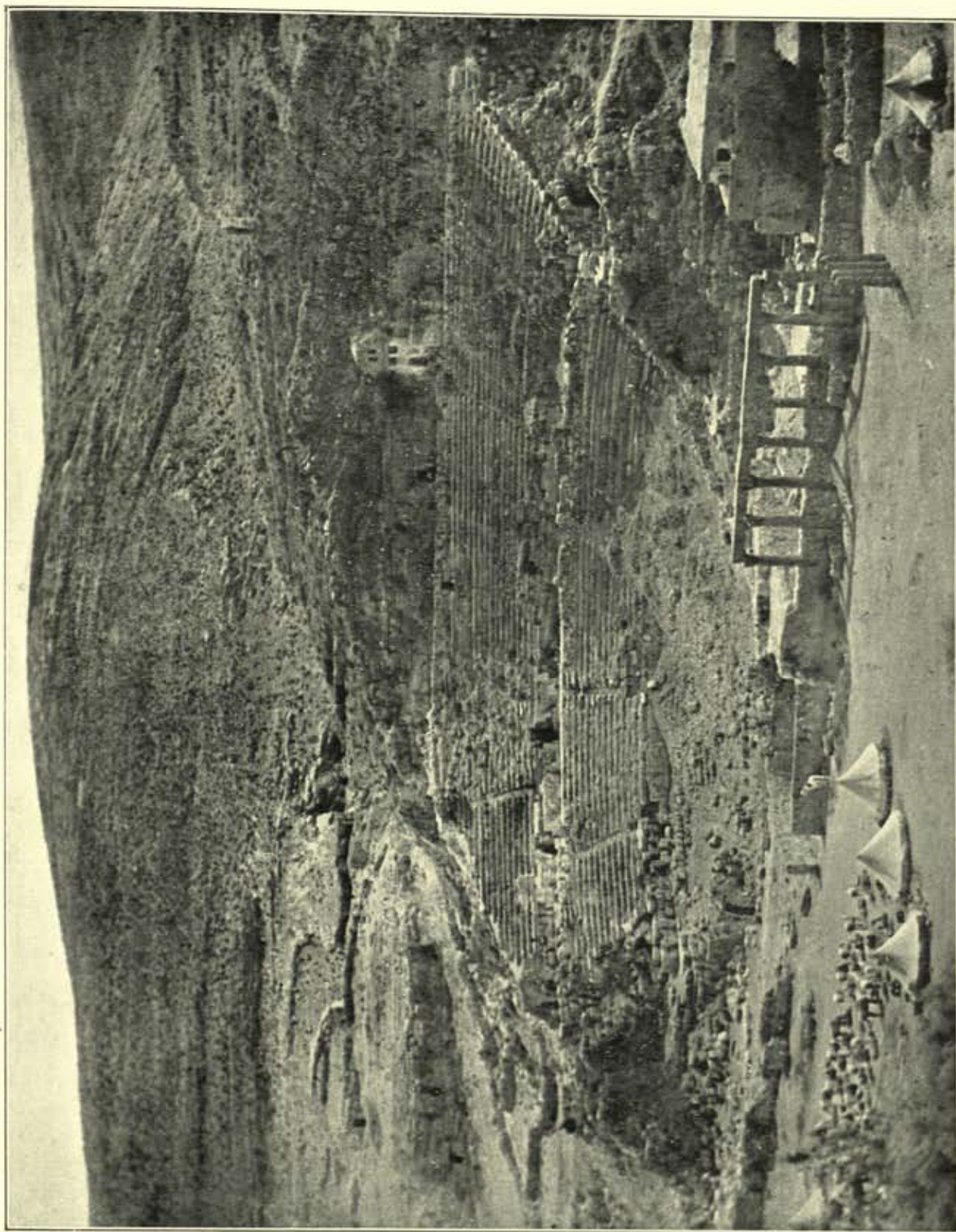
¹ *The Land and the Book*, W. M. Thomson, III p. 615 (Ill.).

numbers of column drums that are found lying about, or built into walls, through the middle of the modern town. The present main street apparently follows the line of the ancient avenue at several points. It is only here and there that one can find the columns of the great colonnades actually in situ. Near the east end of the town, not far from the supposed site of the east gate, the lower halves of two columns (Ill. 30) standing upon their bases, now form the entrance gate to a modern courtyard. The ancient pavement of the avenue appears as the floor of the Circassian peasants' stable yard, and, on the opposite side, three bases, still in situ, protrude from the walls of the modern house. These remains, meagre as they are, give us some useful information. From them we learn that the colonnades were 9.20 m. apart on centres, the street was 8.40 m. wide in the clear, and the intercolumniations were 3 m. wide. The pavement of the avenue was of highly finished oblong blocks closely joined. Westward from these remains, occasional solitary columns without capitals, and with their bases buried in debris, stand as sentinels along the way to indicate the course of the long hidden street. It is plain from these remains that the avenue was kept well up the slope, and very nearly on one level from end to end. The avenue that branched off to the north is marked by two columns, 3 m. apart, which are apparently in situ beside the modern road. Their bases are deeply buried in soil. The neighborhood is thickly strewn with the drums of fallen columns. From one end of the town to the other, wherever these remains of the ancient colonnades appear, one may search in vain for fragments of the entablature which the columns carried; one may not even be absolutely sure as to the order of the colonnades, yet the presence of a large number of Corinthian capitals, all of the same dimensions, and of a size which would fit the columns that are in situ, makes it reasonably certain that this order was employed.

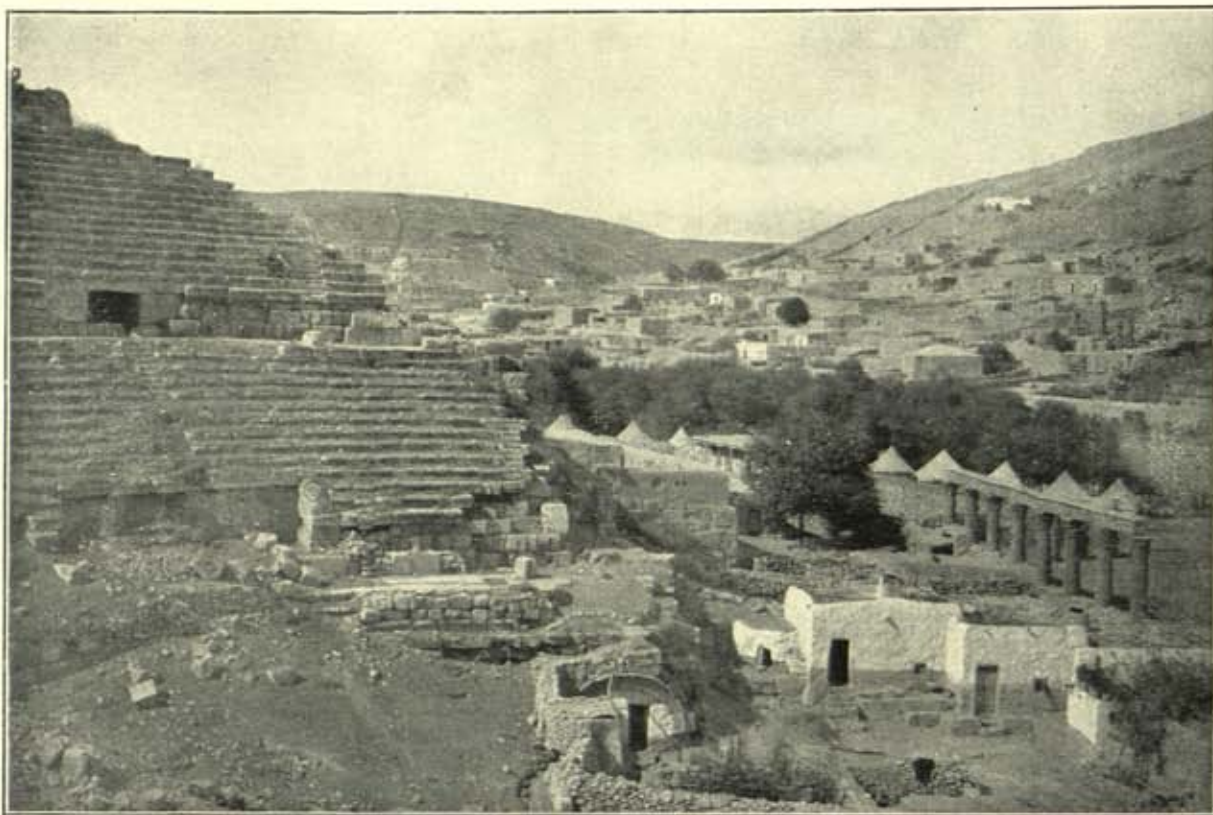


THEATRE. The great theatre of Philadelphia is situated near the eastern extremity of the town, on the south side of the stream (see map), at a point where the mountain-side, a steep wall of rock that rises from the river throughout the greater part of the length of the town, stands back from the bank of the stream, leaving a level terrace, partly artificial and partly natural, upon which a number of ancient buildings stood. The cavea of the theatre, which consists of three horizontal divisions of seats, was almost completely excavated in the rock of the hill-side, though it was found necessary to build up the higher parts of both ends of the semicircle. None of the seats was cut in the natural rock, but all were made of a slightly different quality of limestone, quarried, no doubt, in the immediate vicinity. The artificial portions of the cavea were erected upon masses of masonry penetrated with tunnel vaults that followed the curve of the cavea to about a third of its perimeter on either side. The semicircle of the cavea was produced in straight lines about four meters on either hand, and this part, being entirely artificial, was built upon three stories of superposed tunnel vaults separated by great masses of solid masonry. The lowest of these vaults, on either side, served as an exit, a sort of covered parados, under the end seats. The *scaena* with all the stage buildings has been entirely destroyed, leaving only remains of its foundations. The auditorium (Ill. 31) is exceptionally well preserved so that even the casual visitor

will observe that the cavea had three horizontal divisions of seats, with an upper and a lower *praecinctio*, besides an outer horizontal passage above the uppermost tiers of seats. The seats in the middle sections are preserved, from the orchestra to the uppermost passage, though those of the lowest division are almost completely buried in soil that has washed down from above. A more minute examination reveals, as the plan (Pl. IV) shows, that the lower and middle sections comprised each sixteen tiers of seats, divided by six *scalaria* into seven *cunei*, with *scalae* at the ends of the outer *cunei*. The uppermost division of seats is composed of eight *cunei*, and the *scalae* in this division were midway between the ends of the *scalae* of the lower divisions. The number of tiers of seats in the lowest division is assumed to be equal to that in the middle division from the oldest descriptions on the one hand, and from the measurements on the other. The orchestra and the lowest tiers of seats are completely buried, as is shown by the dotted line in section C. D. of Plate IV; but the level of the orchestra may be determined from the level of the passages within the arches that open upon the orchestra on either side. The semicircular barrier about the orchestra is not likely to have been over 1.50 m. high, and a height of 1.30 m. would allow for just sixteen tiers. The middle division preserves almost all of its tiers of seats intact, on the west side (Ill. 32) as far as the *scalae* on the diameter of the semicircle, and on the east side (Ill. 33) to within two or three meters of that line, as is shown by dotted lines on the plan and in Pl. IV, section C.D. The topmost division preserves five *cunei* intact, the *cuneus* on the west end, and the corresponding *cuneus* on the opposite side, with half of the *cuneus* adjoining it, having fallen in ruins (Ill. 32 and 33). These portions being built upon artificial substructures were naturally among the first to fall. The middle horizontal division of seats was reached from the lower *praecinctio* by double flights of steps in the middle of the terminal *cunei*. The uppermost division was reached from the upper *praecinctio* by similar flights in the middle of each of the uppermost *cunei*, at the ends of the lower *scalae* (Plan, Pl. IV). The upper and the lower *praecinctio* are each 2.30 m. wide; their walls are 1.80 m. high; the passage at the top of the cavea is 3.40 m. wide, and probably had a colonnade corresponding to its outer wall which is 4.50 m. high. In the middle of this outer wall is an *exedra* which will be discussed later. Immediately within the wall of the lower *praecinctio*, at both ends, is a vaulted passage with two openings upon the *praecinctio*. From the present condition of the passages it is not possible to determine how far the vaults were carried; but, judging from the slope of the hill at this point, I do not believe that they were carried far beyond the second opening to the *praecinctio*. (Section C.D.). The passages within the wall of the upper *praecinctio* were carried well around the curve to points shown in the plan by dotted lines drawn across the uppermost division of seats. It had three openings to the *praecinctio*, on either side of the cavea. (Section C.D.). The openings between the vaulted passages and the *praecinctiones* were not arched, but were provided with long three-piece lintels or flat arches, that carried the seats above them. The steps which mounted to the upper divisions of seats were placed on either side of these openings, and within the circle of the lowest tier which was not a seat, properly speaking, but a narrow passage above the *praecinctio*. The arches that opened upon the orchestra sprang from moulded caps, and had moulded archivolts, as is shown in the detail drawings in Plate IV. The same plate shows also the details of the mouldings at the top of the walls of the



III. 31. The Theatre at Ammán, view from the slope of the Akropolis.



Ill. 32. Westside of Theatre at Ammán.



Ill. 33. Eastside of Theatre at Ammán.

praecinctiones, and the mouldings and other details of the seats and steps. The details of the exedra at the top of the cavea could not be accurately drawn, owing to the fact that the place has been converted into a modern dwelling. It appears to be well preserved. Two columns stand in the opening of the exedra, supporting an architrave and an arched pediment (Ill. 31). The spaces between the columns, and on either side of them, have been filled with walling pierced with a door and windows, and the pediment has two windows in it. The whole surface is covered with mud plaster, so that nothing but the chief dimensions of the exedra are obtainable. I was told that there were three niches within the exedra, and I have shown them in the plan and elevations as they were described to me. The extension of the cavea toward the north was, of course, entirely artificial. The lowest of its vaulted passages are preserved on both sides, with their ornamental arches which opened upon the orchestra. These arches are in line with the sixth tier, from the top, of the lowest division of seats. Above the arches were five tiers of seats. The outer ends of these passages were undoubtedly open, though they are closed now, so far as we may see in the accumulation of debris; for this reason I have shown walls in the plan closing the ends, but in section A B I have shown an arched opening at the left end. The remains of the next vaulted passage, i. e., that on the level of the first praecinctio, consist of a pavement and two side walls on the west side (Ill. 32), and a pavement on the side opposite (Ill. 33). Of the uppermost passage no remnant remains, but it unquestionably existed. In section C D of Plate IV, a cut through the three vaults is shown on the left, with the ends of the curved passages opening upon them; on the right is shown the plain outer wall that rose from the pavement of the parados to the top of the end of the cavea. It is impossible, in the present condition of the ruins, to find out definitely the width or disposition of the paradoi. Owing to the distance between the cavea and the foundations of the scaena, it seems certain that there were open spaces on either side between the ends of the cavea and the stage buildings. However, there seem to have been walls at the ends of the paradoi, as may be observed in Ill. 32, where an ancient wall, now employed as the east wall of a modern dwelling, is seen, abutting the end of the cavea at the level of the lower praecinctio. The lower part of this wall is deeply buried in debris, and it is impossible to say whether there was an opening in it on the orchestra level at the end of the parados. It may have been that the ends of the paradoi were closed, and that the paradoi were used exclusively by the chorus (see small restored plan above section A B); while the vaulted passages below the ends of the cavea were the means of entrance and exit for the audience. One would hardly detect the remains of stage buildings in the ruins of this theatre without searching for them. Some writers have even gone so far as to say that the theatre of Philadelphia had no stage. The foundations of these buildings are indeed almost completely buried, only the upper surface of the stones can be seen in the general level of the soil, and this surface is worn smooth with constant passing. In the plan I have shown the foundations as they appear. To the left of the line which bisects the cavea are foundations which show a semicircle and a quadrant facing the cavea; the quadrant terminates in a short projecting wall: the rear part of these foundations is perfectly straight, and three meters from it are the foundations of a wall, 1.10 m. thick, composed entirely of headers. On the right of the line which bisects the cavea there are no traces of foundations now visible as far as a modern wall; but on the other side of

this wall are foundations with a semicircle corresponding exactly to the other, and with a straight line behind it, a passage three meters wide, and an outer wall, 1.10 m. thick, which forms the boundary of a modern court-yard. Beyond the semicircle, i. e., toward the west, is an open space, and on the other side of this, more foundations, and other modern houses. These remains are scant enough, but they apparently give us a basis for the restoration of the scaena in the form of a solid wall 4.30 m. thick, with an opening in the middle flanked by half niches, with semicircular niches on either side beyond the half niches, and with a passage in the rear. We may perhaps carry the restoration a little further by recognising a side portal of the scaena in the break in the west side, though it does not appear to be matched on the opposite side. This, however, may be due to the condition of the ruin. The plan of the parascenia must remain a matter of conjecture until systematic excavations shall have been undertaken here. Eastward from the foundations of the scaena are heaps of rubbish, and westward are modern houses. I am of the opinion that two of the modern houses shown on the plan, and in Ill. 32, make use of the wall of the stage buildings, but the house-walls are so completely coated with mud plaster that it is quite impossible to ascertain whether they are ancient or not. The extreme north wall of the stage buildings appears, from the ruins, to have been prolonged to the outer ends of the cavea, as I have shown in the small tentative restoration. Outside of the rear wall of the stage buildings, and at a distance of about seven meters from it, there appears to have been a colonnade of Corinthian columns. Eight of these columns are still standing, with architraves above them, opposite the western end of the cavea. The row of columns extends a little beyond the line of the west side of the cavea to a double column, the stump of which protrudes from the soil. From this point a second colonnade was carried northward, not quite at right angles with the first colonnade. The second colonnade consists now of only four columns without capitals; it is of smaller scale than the other: the larger columns are .70 m. in diameter, and the intercolumniations are nearly 3 m.; while the smaller columns have a diameter of only .60 m., and intercolumniations of 2.32 m. The greater colonnade undoubtedly extended entirely across the width of the theatre, and the smaller one may have corresponded to a similar colonnade at the east end of the theatre, the three enclosing one end and two sides of a public square in front of the great theatre, flanked on the east by the odeum, and, possibly, on the west by some other building which has completely disappeared. M. de Laborde published a sketch¹ of the theatre as it was in 1827, and gives a short description of its ruins; Captain Conder gives an incomplete plan² on a small scale, and describes the ruins at some length as he found them in 1881. Among the earlier illustrations of the theatre are those published by Merrill³, and Thomson⁴ who visited Ammân between 1875 and 1880. A more recent photograph is that published by Professor Brünnow in his great work⁵ on the Province of Arabia.

ODEUM. The small theatre, or odeum, faces west upon the open space in front of the great theatre. Its southwest angle is about 5 m. east, and 14 m. north of the northeast angle of the theatre. It was built up entirely from the ground level and

¹ *Voyage de la Syrie*, 1837, p. 99 sq. Pl. LXXXII.

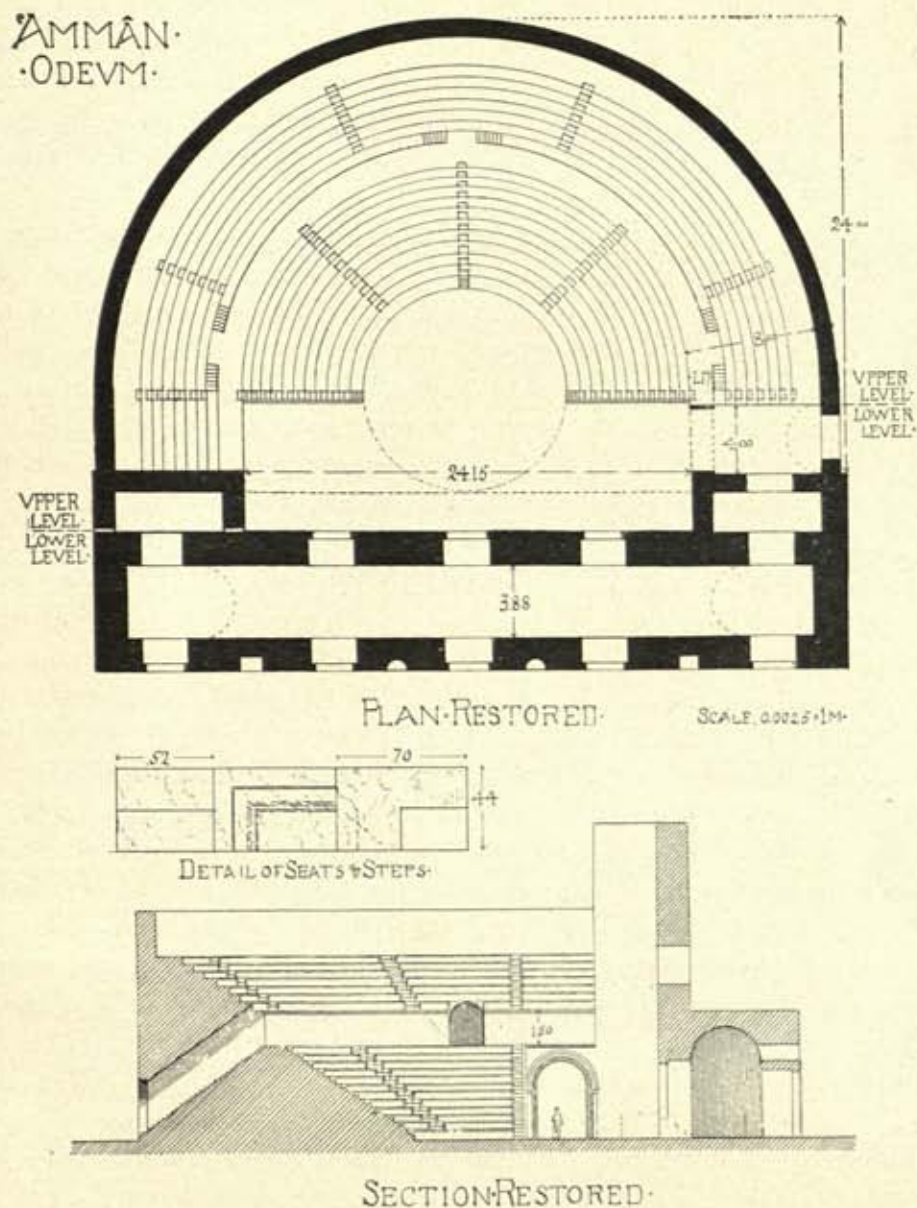
² *Survey of Eastern Palestine*, 1889, p. 36.

³ *East of Jordan*, Selah Merrill, 1881, p. 399 sq.

⁴ *The Land and the Book*, W. M. Thomson, 1881—86, p. 613 sq.

⁵ *Provincia Arabia*, R. E. Brünnow, II, p. 220.

consisted of an outer west wall with five entrances in it, an inner wall, or proscenium, connected with the outer wall by a tunnel vault, two massive towers which formed the parascenia, and a small cavea divided by a single praecinctio. Of these parts, the first, or western wall, with three of its portals is standing to the height of one story; the doorways on the ends have fallen with the collapse of the angles, leaving one jamb



Ill. 34.

of each with the springers of the relieving arches above them; the inner wall is partly preserved, and portions of the vaulting of the passage between the two walls are still in place; the southern tower is intact in two stories, and its west wall rises to a height of about 15 meters, but the opposite tower is a heap of ruins. The exterior curve of the cavea may still be traced at certain points; but the interior is filled with a mass of debris caused by the collapse of the northern tower and the high wall of the scaena, both of which fell inward. The ruin must have long served as a quarry; for almost

all the seats that are not buried in debris have been removed. It was possible for me to find only short sections of four seats, at the extreme end on the south, and here I was also able to secure the measurements of the praecinctio. It is plain that this building, though badly ruined, in 1881, when Captain Conder gathered the materials for his plan¹ of the odeum, was not in the demolished condition in which we found it twenty-three years later; for there are details in his description that are not to be found today. Captain Conder published only a plan on a very small scale without any details in the cavea; but his description gives a number of accurate measurements. With these as a check I am able to present the accompanying plan (Ill. 34), for which I cannot lay claim to accuracy in details, and a cross-section which is based largely upon conjecture.

Plan. It is not possible, from the minuteness of its scale, to ascertain the precise measurements of Captain Conder's plan of the odeum, where they are not definitely mentioned in the text; but so far as they are obtainable with the aid of the scale of feet given, they are substantially the same as those which I took. The whole structure, from the front wall to the exterior curve of the cavea, measures 35 m., or, according to Captain Conder's plan, a little over 100 feet; the extreme width of the cavea is 40 m.; in Conder's plan, about 125 feet; the stage building, at the middle, through both walls and the vaulted passage measures 7.48 m., in the other plan 25 feet. The old plan gives but three portals in the west wall, and makes this wall shorter than the width of the cavea; Captain Conder apparently did not observe that this wall terminates at either end in a door-jamb with the springers of a relieving arch over it; one of these jambs is shown in the photograph² published by Captain Conder, the other may be seen in Ill. 35. These doors were of the same dimensions as the others, and, when they are restored, the length of the west wall will be equal to the width of the cavea. Captain Conder shows towers projecting inward at either end of the scaena wall; he states in the text that one of these towers measures 11 feet east and west, and 25 feet north and south. By this he must have meant that the north side adjoining the scaena wall measures 11 feet, and that the east wall was 25 feet long outside; for the south wall of the tower, now standing, is nearly 5 m. long. The earlier plan moreover places the centre of the semicircles of the cavea upon a line connecting the angles of these towers; but such a centre will not give a radius long enough to touch the rear curve of the cavea, which we agree is 35 m. from the west wall, without increasing the width of the cavea which we know to be 40 m. The measurement from the wall of the praecinctio at one end, to the corresponding point opposite is 24.15 m. In my plan I have therefore moved the centre backward 4 m. and I have constructed the semicircles of the cavea within the prescribed dimensions. This arrangement gives a space 4 meters wide for the parados. Down under the debris on the north side I measured a vault 4 meters wide, east and west, and a series of carved voussoirs of an arch that must have had a span of at least 3.70 m. I believe that the vault was the vault of the parados and that the arch-stones belonged to the arch which opened from it toward the orchestra. Captain Conder found seven rows of seats above the praecinctio; there could never have been more, if there were any passage at the top of the cavea: I found only four rows of seats, and no remains of seats

¹ *Survey of Eastern Palestine*, p. 36.

² *Survey of Eastern Palestine*, opp. p. 40.



Ill. 35. Odeum at 'Ammân, view from Southwest.

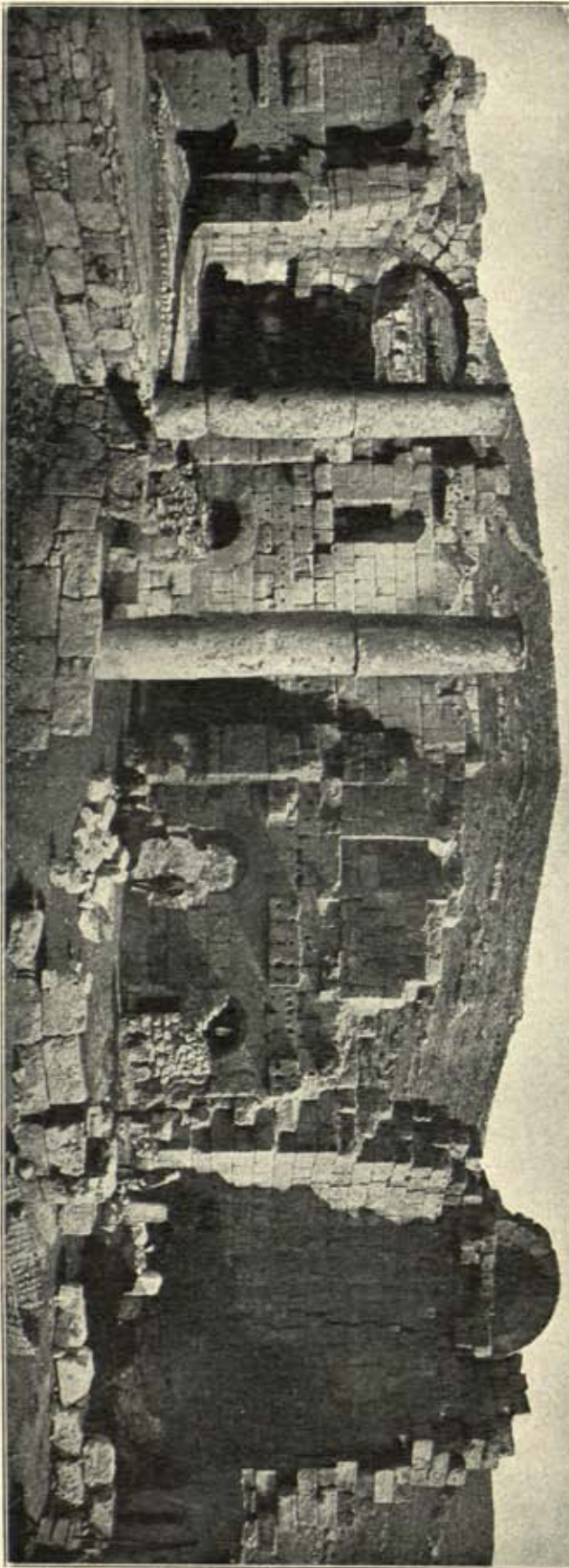


Ill. 36. Rear wall of Nymphaeum at 'Ammân.

below the praecinctio have ever been reported. Captain Conder describes three vomitoria from the cavea, one in the middle of the curve and one on either side. Only the barest remains of these are now visible. It is evident that these led from the praecinctio down to the level of the ground outside. The side of one such opening in the wall of the praecinctio is still to be seen on the south side at a distance of 5.75 m. from the tower wall. If the height of the praecinctio above the ground level be as I have indicated it, the steps of the vomitoria will descend from the praecinctio to the ground level at the outer curve of the cavea wall, at the same angle as the steps of the *scalae* within. These exits, of course, had vaults; these are likened, by Captain Conder, to segments of a hollow cone.

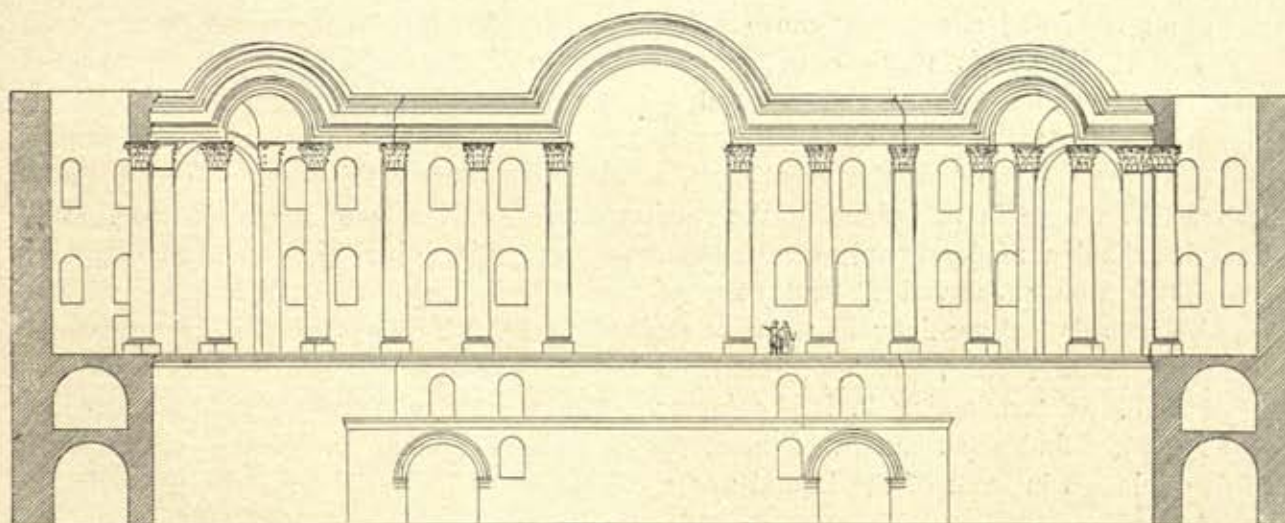
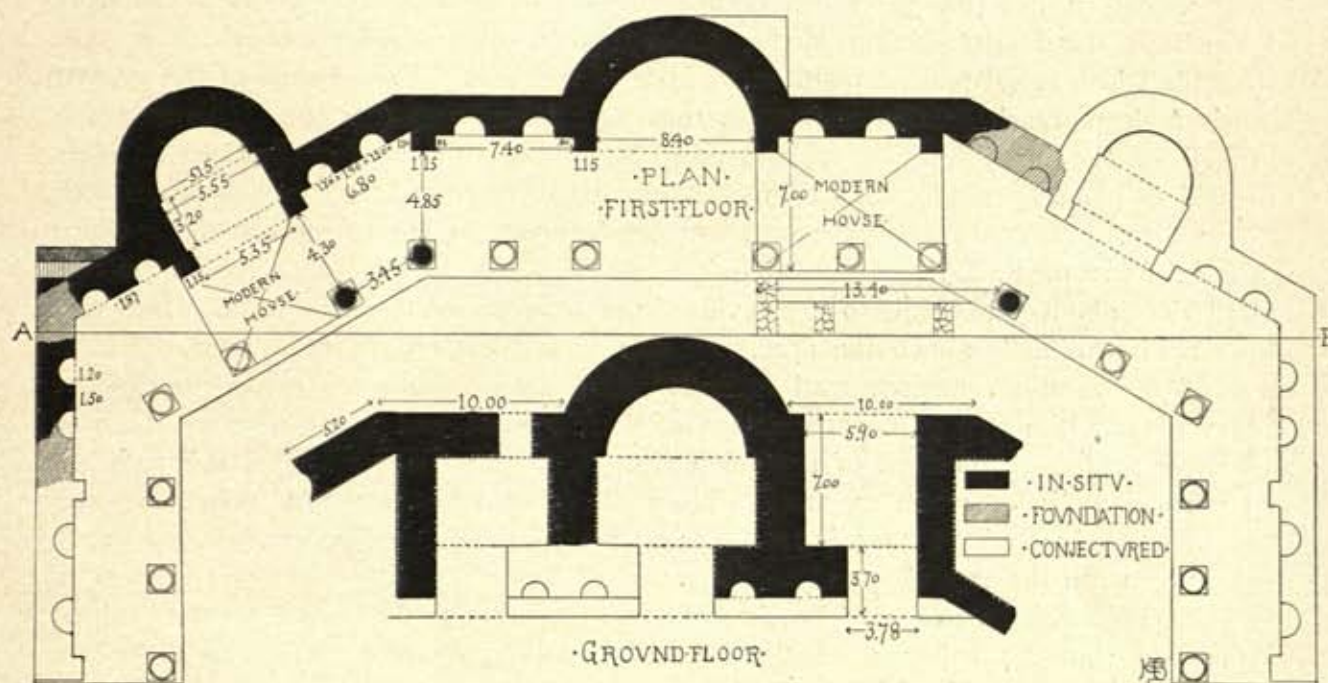
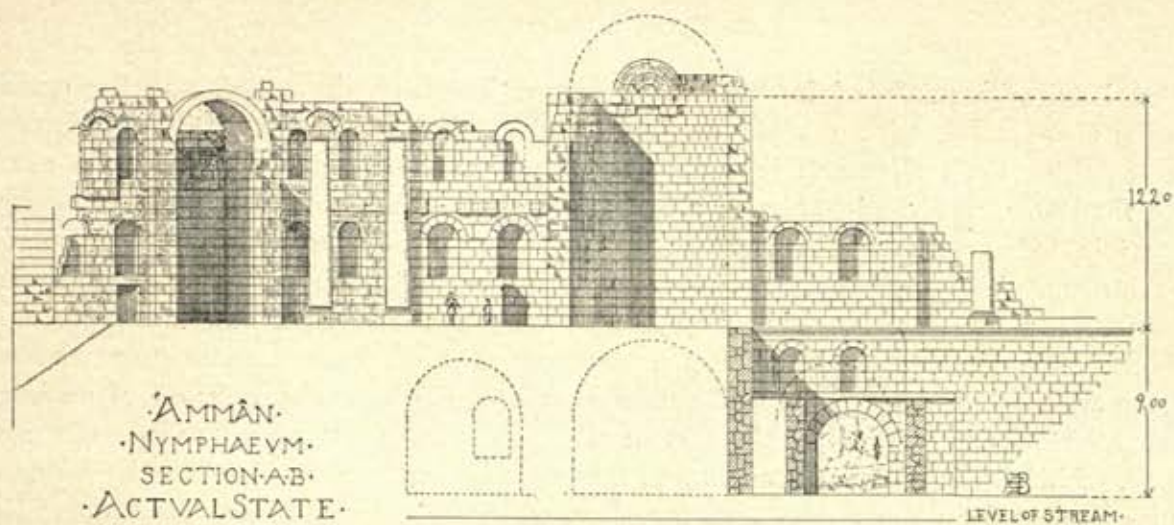
Superstructure. Satisfactory measurements of heights are out of the question in a ruin so filled with debris, unless the debris is removed; I have attempted to give a cross section, reconstructed in, what seems to me, the most logical method with the data in hand, and from what we know of the other buildings of a similar character. The ground level is, of course, unobtainable in a ruin of this character; but one may begin with the praecinctio, of which a small section is preserved, and place above it seven rows of seats with a narrow passage above them; parts of a *scala* are to be seen near the south end; the seats and the praecinctio terminate against the long wall of the tower. Of this much we may be reasonably certain; but the reconstruction of the cavea below the praecinctio depends entirely upon the existence of *paradoi* passing under the praecinctio and the upper section of seats at their extreme ends (Ill. 34). If there were *paradoi* at this point, a complete half circle of seats must be provided for within, i. e., east of, the *paradoi*, and the number of seats must be great enough to furnish height for the entrances on either side. I have assumed that the vault 4 m. wide is the vault of the *parados*, and that the *voussoirs* belonged to the arch of the entrance, and have therefore given a height to the lower section of the cavea, that will allow for ten rows of seats and a barrier about the orchestra 70 cm. in height. This arrangement provides for an orchestra 10.75 m. in diameter, and the semicircle of the orchestra, if continued to a circle would be tangent to the front line of a stage 2 m. deep. The standing portion of the south tower still towers above the rest of the ruin (Ill. 35), but in 1881, according to Captain Conder's photograph, it was much higher, and was estimated by him to be 50 feet, about 17 m. high. This would give a *scaena* wall of at least that height. From indications in my photograph, as well as that published by Captain Conder, it is evident that there were large arched windows in the first story of the *scaena* wall above the vaulted passage at the rear of the stage: the jamb of the window and one *voussoir* are to be seen at the north side of the tower where a short section of the *scaena* wall is still in situ. It is very doubtful if the front wall of the odeum was carried up for an upper story; there is hardly enough debris to warrant it; yet this might have been carried away for building material; but the fact that the west wall of the tower, and the face of the section of the *scaena* wall still clinging to the tower, are both faced with draughted masonry, seems to show that they were exterior walls, although the rustication is carried to the base of the tower behind the vaulted passage of the *postscenium*. The outer wall is of finely dressed smooth ashlar, the portals were provided with arches of discharge above flat, three-piece lintels, the frame mouldings are of good but simple profile. On either side of the middle portal was a semicircular niche, and in the next spaces were rectangular

Ill. 37. Nymphaeum at Ammân, view from Northwest.



niches with round arches. Beside each relieving arch there were corbels in the wall which were more probably inserted to sustain the beams of a colonnade than to hold statues. The greater part of the ornamental details of the building has disappeared. The interior contains among its heaps of broken fragments several fine pieces of well wrought friezes and cornices which show that the scaena was richly adorned with entablatures. The mouldings of the seats were substantially like those of the great theatre (Ill. 34, detail), and have no resemblance to the detail given by Captain Conder, which must have been made from a broken example.

NYPHAEUM. The largest of the ancient buildings in Ammân, exclusive of the great theatre, is a massive ruin near the western end of the colonnaded street, nearly opposite the valley which opens toward the north. It stands directly upon the edge of the stream, and a steep cliff rises immediately from the opposite bank. The building faced about northwest, its rear wall upon the water's edge, and its façade looking toward the avenue of columns (see map). A second stream which, in the wet season, still flows southward down the valley that opens toward the north, passes directly beneath one end of the ruin and empties into the main stream. The ruin has generally been described as Roman baths, though it has been variously identified by different travellers as a basilica, and as a palace; but it is very difficult now to determine what its original purpose may

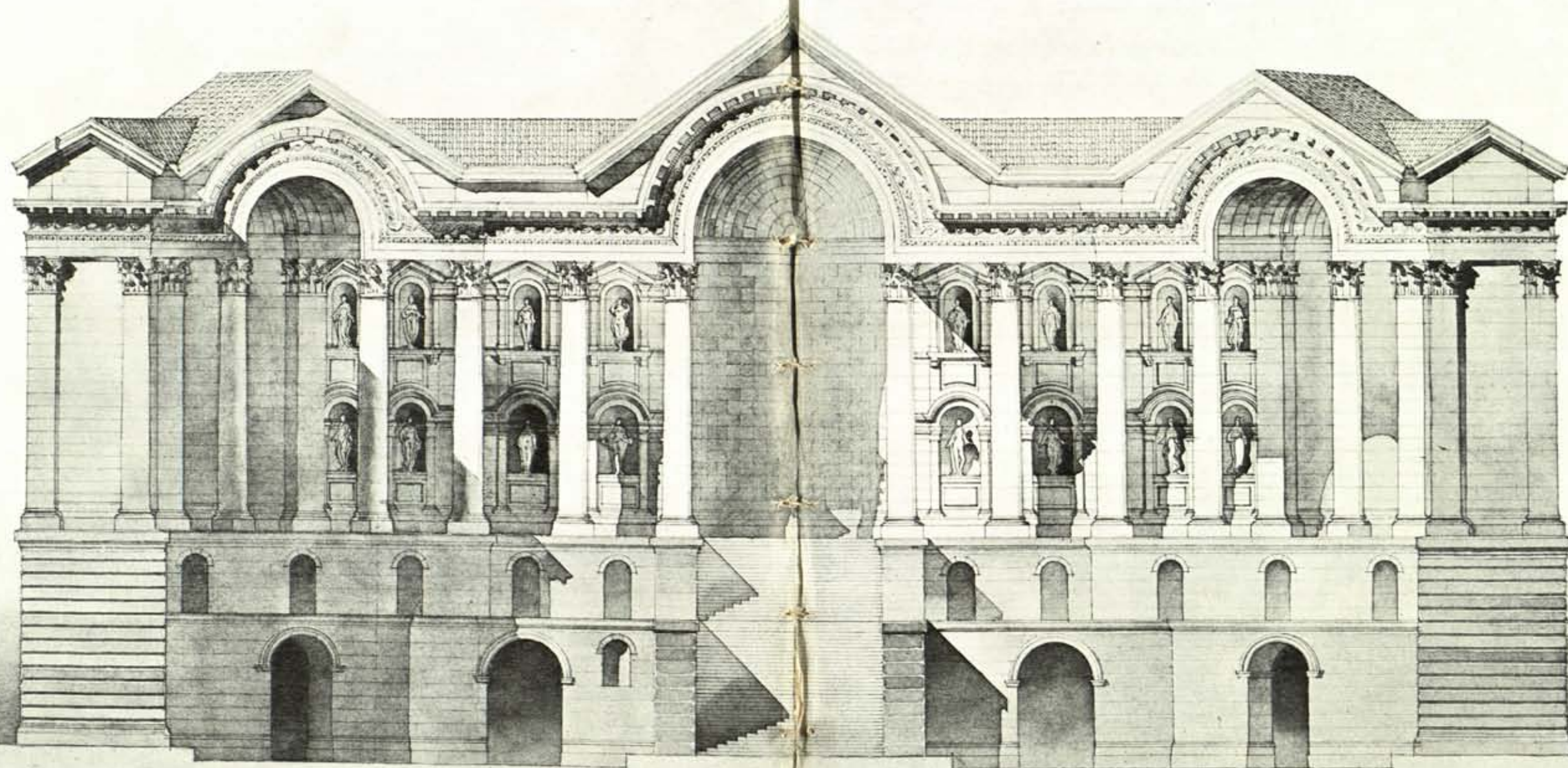


have been; for much of its original structure has been destroyed, and the standing portions are filled with modern dwellings and stables. Judging by early drawings and photographs, the edifice was in a far better state of preservation a quarter of a century ago than now, and the inhabitants are still hewing the ruins to pieces for building stone. The ruin today consists of a gigantic wall which rises to a height of over 20 m. from the stream. The wall is in two sections, a longer and a shorter one, which meet at an obtuse angle; the longer section has a broad apsidal recess, 8.40 m. wide, in the middle, and the shorter section has a narrower apse set back 3.20 m. from the front of the wall. The rear of the wall presents an irregular but unbroken face of rusticated, draughted masonry from top to bottom (Ill. 36). The front, which shows only about 12 m. of height, is of smooth quadrated masonry, and its surface is broken by buttresses which project from the angles and the sides of the recesses, and by two rows of large round arched niches (Ill. 37) which occupy the spaces between the recesses. In front of the wall stand two column shafts, about 10 m. high, — the remains of a great colonnade which stood upon a platform in front of the wall. To the west of the greater apse is a deep trench passing under the ruin by a broad arch (Ill. 36). This trench is the bed of the stream which, in its season, flows down the northern valley; its sides are held in place by crude walls composed of ancient fragments. The face of the arch is over 8 m. in front of the great wall and nearly upon the line of the colonnade which stood in front of it. Above the arch is a set-off about a meter wide, and from this a wall rises about 3 m. high to the level of the platform of the colonnade. This wall shows a niche directly above the arch, and one to the left on the same level. To the right of the arch an ancient wall extends at an obtuse angle toward the northwest. This wall was the face of a continuation of the platform, and upon it stand the base and lower section of the shaft of a column (Ill. 38, top.). To the left of the arch are two parallel walls of crude masonry with a filling of debris between them; one wall rises to the height of the set-off, the other to the level of the platform. These crude constructions are the retaining walls of a mass of debris that fills the space in front of the great wall with its apses. The line of the platform may be traced by the position of the two standing columns on the left, and the fragmentary column on the right. A fragment of wall, with niches in it, forms another obtuse angle at the extreme left of the great wall, and shows that the building was extended toward the north at that end.

Plan. With this much data one would naturally conjecture that the great apse was set upon the axis of the original structure, and, judging by the angle of the platform wall on the right of the lower arch, and the corresponding angle and foundations at the west end of the great wall, would reconstruct a third section of the great wall with an apse in it, balancing the section on the east side of the main apse. But Captain Conder renders conjecture unnecessary on this point; for the building was sufficiently well preserved at the time of his visit for him to be able to present a plan¹ which is substantially like the one given in Ill. 38. Captain Conder represents the short parallel walls, which project from the ends of the two lateral sections of the great wall, as terminating in half columns. These are not shown in his photograph² and I did not find any remnant of them. Such an arrangement would make a colonnade of five columns in front of the lateral apses, which seems impossible, and I am convinced

¹ *Survey of Eastern Palestine*, p. 40.

² *Survey of Eastern Palestine*, frontispiece.



· HAMMÂN · NYMPHÆVM · RESTORATION ·

that the half column must have been of the nature of a respond in the wall, and that the colonnade, following the line of the wall, turned northward at both ends for a distance of two or more intercolumniations, and to this extent, my plan differs from Captain Conder's. For a more complete understanding of the ruin it is necessary to discuss the plans more in detail. I trust that the placing of the plans of two floors in such close proximity as they are given in Ill. 38, will not prove confusing. It was exceedingly difficult to obtain data for the plan of the ground floor, except at the west end, where the broad vaulted passage 5.90 m. wide, and 7 m. deep, extends below the platform, and opens in the front of the building through the arch already described. The walls are exceedingly thick at the foundations and slope backward from the base to a height of 3 meters. In the wall on the east side of the great apse there is a narrow arched opening that leads to a vaulted chamber corresponding to the vaulted passage on the opposite side of the great apse. This chamber was full of debris and filth, and it was not possible to secure its dimensions with accuracy. There is another vaulted chamber between these two, beneath the part of the platform in front of the great apse. It is reached from an underground stable in front of the ruin; but it is nearly filled with debris and could not be measured exactly. With the aid of a candle, I could see the curve of an arch which I took to be the front of a half dome under the main apsis. Within the stable there is to be seen a fragment of a niche, apparently in situ, in the wall of the platform. These underground places in front of the platform, with openings leading into vaulted chambers under the platform, seem to show that the whole space in front of the building has been filled in, and that the original level in front of the platform was as low as the bottom of the trench at the west. The plan of the upper level, i. e. the level of the platform, is perfectly definite. The main wall formed a huge polygonal exedra with apses, or minor exedras, in three of its sides. In front of it a platform, 7 m. wide, followed the angles of the wall, and, upon the edge of the platform, stood a colonnade with varying intercolumniations.

Superstructure. Upon this plan a restoration of the upper floor is not difficult, with the data at hand; but the arrangement of the lower floor cannot be definitely known without excavations. If we accept the theory that the open space in front of the building has been filled in, and that its original level was that of the lower arch, we should have a lower great exedra formed by the wall of the platform, and if the design of this is to be balanced, we should have another arch, opening from it into the vaulted chamber on the left, and, perhaps, a central arch besides. The set-off above the arches would form a sort of gallery across the main section; this had at least two niches upon it, and there may have been a row from end to end. Depending upon the purpose of the building, there may have been a great flight of steps leading from the lower level up to the central apsis. In the upper floor the wall with its double rows of niches, its half domed apses and its colonnades, is easily restored. Modern dwellings conceal considerable portions of it, but few details are wanting. The halfdome of the great apse was constructed in a manner just the reverse of the usual method; the courses, instead covering toward a keystone at the crown of the apse-arch, radiate from a centre at the top of the middle of the wall of the apse (Ill. 38). The lines of the coursing are thus vertical instead of horizontal semicircles. The two niches shown on the right of the main apsis are preserved inside the modern house (Ill. 38) and the ancient pavement of the platform forms the floor of the same house. On the

other side a low modern structure completely fills the lower parts of the apse and the vaulted space before it, and employs one of the great columns as a corner stone. In the courtyard of this house one may see, half-buried, a little doorway that connects with a staircase that led through the wall and down to the lower level (see Ill. 38 plan). The columns are so spaced that the intercolumniations in front of the apsis must have been provided with arches, and there can be no doubt that the members of the entablature of the colonnade were carried over these spaces in arched form. No remains of capitals or entablature were found sufficiently preserved to give details. It may be assumed that raking cornices surmounted the three arched architraves, and this assumption is supported by Captain Conder's photograph in the frontispiece, where a slanting wall, — one side of a gable — may be seen above the wall on the left of the great apsis, showing that the whole middle section of the structure, with its six columns and arched central intercolumniation, was covered by a double pitched roof. There seems to be a general impression that the building was at some time converted into a fortress, and that the original structure suffered severely at that time. There are now no evidences of conversion, and every part of the structure now standing is of the original building. The walls which flank the trench that leads up from the lower arch were undoubtedly constructed to prevent the trench from being filled up, and to provide passage for the water which undoubtedly descends from the valley at the north during the wet season, and thus to provide against flooding the town. It will be noticed, in an examination of the photograph (Ill. 37), that the interior face of the great wall is pitted with small, deep incisions, regularly disposed over the surface. The arrangement of these holes is such as to leave no doubt that they were connected with the fastening in place of a casing of marble, or other semi-precious material, consisting of an entablature at the top of the wall, pediments and colonettes for the niches, and probably a complete revetment over the flat surfaces. I found, in the interior, a piece of such interior ornament in oriental alabaster, a material so perishable under exposure to the weather that only a small fragment had survived in a well protected spot. If the walls of this great building were revetted in this material it is not surprising that no remnant of it has survived. A restoration of the front of the edifice is presented in Plate V. This has been reconstructed on the general lines of my tentative scheme (Ill. 38). The details of the entablature were studied from the arched entablature and pediment at Damascus, those of the niches are adapted from similar details in the propylaea at Djerash, and the wall of the temenos at Ba'albek.

Purpose. It is quite impossible to determine the nature or purpose of this great edifice. It is certain that it was neither a basilica nor a palace, and almost equally as certain that it was not *thermae* or *balneae*, in the ordinary sense. I doubt if there was ever much more of the structure than is represented in the conjectural parts of my plan. It consisted, as we have seen, of a colonnaded exedra almost 70 m. broad, with a basin 9 m. deep before its colonnades. Into this basin flowed a small stream, and behind the building, at a fraction of a meter below the level of the basin, flowed the perennial waters of the Wâdî 'Ammân. By closing the arched outlet of the smaller stream, or by damming the greater one just outside, it would have been possible to flood the basin to any desired height, up to 9 meters. The level of the basin was far below the level of the colonnaded avenue and of other buildings to the north, so that there must have been a retaining wall for the basin on that side. It seems almost conclusive

that the structure was in some way connected with the water, and, for that reason, I have called it a nymphaeum, and I notice that a nymphaeum at ‘Ammân is mentioned in the report¹ of the Berlin Expedition. The presence of niches and exedras suggest statuary and places for ceremonial, though the latter may have been only public resting places like the exedras of a gymnasium. The edifice probably faced a great open space, like a forum, in the most level and open part of the city, where the two colonnaded avenues joined. It was certainly one of the most important and most beautiful buildings of ancient Philadelphia. The following are among the references to this building in the notes of various travellers: —

Seetzen, I, p. 396;

G. Robinson, II, p. 174;

Merrill, p. 401 (Ill.);

Burckhardt, p. 358;

Tristram, *Land of Israel*, p. 535;

Thomson, III, p. 611 (Ill's.).

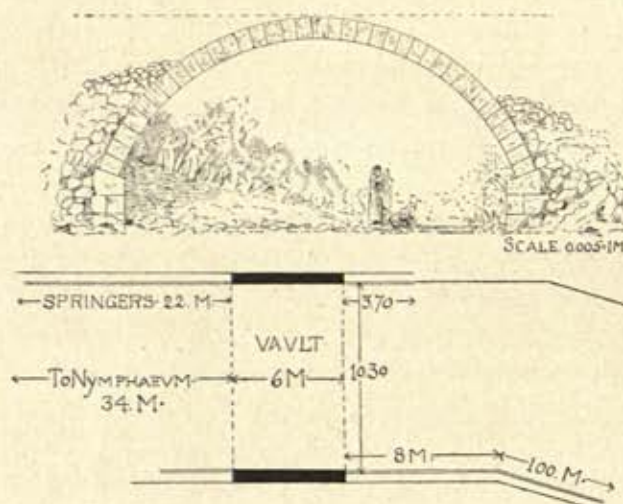
APSIDAL BUILDING. There are still to be seen foundations and fragments of a wall, a hundred meters or less to the southwest of the nymphaeum, which is described by Captain Conder as a wall of the "Cathedral." The structure is in complete ruins, and it would be impossible now to secure as full details of its plan as are given in *The Survey of Eastern Palestine*². The enclosing walls in front of the wall with the apse are entirely concealed by modern structures. And although the apse may have been utilized as part of a Christian building, and although the enclosing walls in front of it may have been the walls of a church, it is impossible to believe that the wall in question was originally built for any such purpose. The axis of the apse points a little east of south, so that its orientation is more that of a *mihrab* than of a presbyterium. The wall is of unusual thickness, laid dry, and the niches on either side of the apse bear a strong resemblance to those of the nymphaeum. The exterior surface of the wall is of draughted masonry, the surface within the draught being smoothly finished. That bosses "plain and not rustic", in draughted work, are "usual in the Byzantine masonry", as Captain Conder says, is doubtful; but it is certain that stone work of this description is found in pre-Roman masonry at ‘Arâk il-Emîr, and in Roman construction at Ba‘albek and elsewhere. The interior surface of the wall is pitted with cramp holes for a revetment. This ruin stands beside the stream, its rear wall rising directly from the bank; its width is about equal to that of one section of the great wall of the nymphaeum, and its apse is almost as wide as the central apse of that building, its niches are about the same dimensions as those of the nymphaeum, and it is certainly of about the same date as that great Roman building. It must therefore have been an edifice of very much the same character and appearance as the nymphaeum with the exception of the basin in front. It may easily have extended in either direction to form a plan of polygonal outline. It may have been part of a gymnasium or a portico with an exedra, and, indeed, it may have been joined to the nymphaeum, in which case a high massive wall may be conceived of as rising from the river for a distance of nearly 200 meters, with a colonnade in front opening upon the *platea* between the river and the junction of the two colonnaded avenues (See map).

THE CONDUIT. The great work of Roman engineering skill in Philadelphia was the vaulted conduit through which the water of the Wâdi ‘Ammân was carried from one

¹ Otto Puchstein, *Jahrbuch des Kaiserlich Deutschen Archâologischen Instituts*, Band XVII (1902) p. 108.

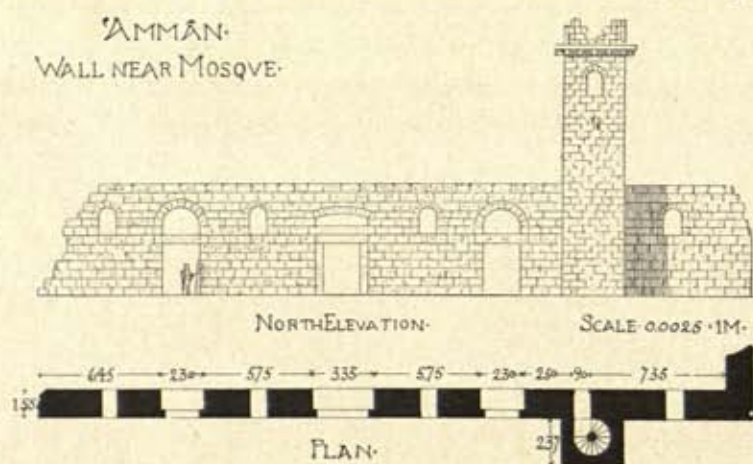
² S. E. P., p. 55.

end of the city to the other. By this conduit, not only was the water protected from contamination in its course through the town, but the narrow space between the steep slopes that confined the valley was enlarged, levelled and made serviceable. A short section of this conduit is well preserved at a point just below the nymphaeum. This has always been described as a bridge, though it leads only to a narrow ledge at the



Ill. 39.

foot of the cliff. A more minute examination of the preserved section of the vault and its surroundings (Ill. 39) convinces one, at once, that this was not built for a bridge; the spring-stones of a vault are in situ for a distance of 22 m. above the preserved vault, on the north side of the stream, and for 8 m. below it on both sides. At this point the conduit turned in an obtuse angle toward the southeast, and, from the angle, the side walls and springstones of the vault can be traced over 100 m. down the stream, on the south side, to a point where both banks are hidden in debris. Remains of the conduit are again to be traced further down the stream, in the vicinity of the theatre,



Ill. 40.

ANCIENT WALL NEAR MOSQUE. The best preserved of the fragments of buildings that are later than the great Roman period, is a fine section of wall, with three portals and four windows in it, that now forms the north side of the court-yard of the mosque (Ill. 40). The wall is of great thickness (1.55 m.), laid dry, in courses of 45 to 50 cm.;

but the collapse of the vault has completely altered the levels, and filled the bed of the stream with broken vaulting stone and rubbish from above. The lighter materials have gradually washed out, so that the north bank now slopes from the stream back to the level of the colonnaded avenue, though, in ancient times, there must have been a comparatively level surface stretching from the avenue to the steep cliffs on the south side of the stream.

the portals are high and spacious, two of them have flat lintels and stilted relieving arches, and the other, the middle one, has a lintel below a flat segmental arch. The windows are all roundheaded. The structure is devoid of ornament of any kind. To the north, or outer face of the wall, near its west end, is attached a tower, or minaret, of later and poorer workmanship, built in courses 30 to 40 cm. wide, laid in mortar. The entrance to this tower has been roughly cut through the ancient wall. The great central portal has been reduced in size by the insertion of new jambs and lintel. The wall, when mentioned by travellers, has always been considered as Mohammedan work, and part of the mosque. It has at present no further relation to the mosque, which is a small structure, and, as I imagine, not very ancient, further than that it bounds one side of the court before the mosque. The wall itself with its portals and windows was built to form one side, or the front, of a building; it is not a court-yard wall, and if it formed the front of an earlier mosque than the present one, as it may have done, the mosque was, in all likelihood, the one described in the 10th century by Mukaddasi.¹ But even so, the matter of the date of the wall is not settled. It is difficult for me to believe that the wall is Mohammedan work; the tower, which is square, with a spiral stair within, and which has round arched windows, is probably Mohammedan from base to summit, and may be as old as the time of Mukaddasi,² or even older; but the character of the wall seems either very late Roman, or early Christian. The wall might easily have formed the north side of a large church; its orientation is far more nearly correct for a church than that of the so called cathedral, but it is unusual to find one of the side portals of a church larger than the others. It is quite possible, however, that the portal was inserted in early Mohammedan times, in the period, let us say, of the tower, and that in still later times, its size was reduced by the introduction of new lintel and jambs. I would reconstruct the wall with but two portals, with one window where the central portal is, another where the tower stands, and a third at the eastern end where the wall is broken; this would give the typical side wall of Syrian basilicas. If the wall is not the wall of an early church it must be the work of Christian architects in the earliest period of Muslim architecture in Syria. The later Mohammedan architecture at ‘Ammân is represented in the arched and vaulted gateway on the akropolis, published by Dr. Strzygowski³, and beautifully illustrated by Bruno Schultz in the same publication.

FRAGMENTS. The modern town abounds in architectural fragments and bits of sculpture, built into modern houses or lying in heaps of rubbish; but few of them are sufficiently well preserved to make a publication of them worth while, and others are in such positions as to make reproductions of them, in photographs or drawings, quite impossible. Below the west wall of the akropolis, at the very bottom of the valley, I found a drum of a large fluted column 1.10 m. in diameter, and a broken Ionic capital of large scale. These were the only fragments that I saw in ‘Ammân that could possibly be assigned to the Ptolemaic era of the city's history.

Not far from this spot, in a stable, buried in straw, I was shown an excellent specimen of relief sculpture in white marble. The subject represents a horseman in

¹ Muk., 175; quoted by Yâkût, III, 760.

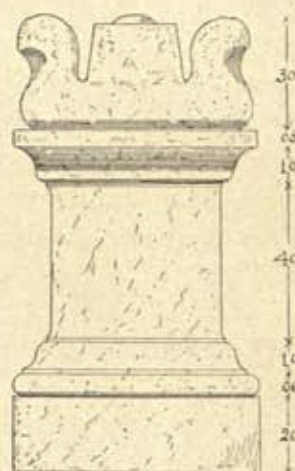
² To his time probably belongs a short inscription in Kufic characters found in the courtyard of the mosque and to be published in Div. IV, sec. D.

³ *Jahrbuch der Königlich Preussischen Kunstsammlungen*, Band 25, Heft IV (1904) p. 350.

high relief; in the background, in lower relief, stand two female figures, and, in the middle, above the rider, the gorgon's head. The work is highly finished, and, so far as I could judge in an uncertain light, the proportions and grouping were very beautiful. The horse and rider are almost in the round, and the rider was perfectly preserved except the head which was missing. At the western end of the town, on the south side of the stream, Dr. Littmann found a small relief built into the wall of a modern house. It represents a bust of Zeus Ammon, with the ram's horns, and appears to have been well executed (Ill. 41). From the shape of the frame which surrounds the bust, one might conjecture that the relief once adorned the end of a sarcophagus cover.



Ill. 41. Relief found in Ammân.



Ill. 42.

Small altars, 1.20 to 1.40 m. high, are found in many places, built into walls or lying beside the streets. They are, for the most part, of the design shown in Ill. 42, with the usual base, die and cap, surmounted by four high "horns" at the angles, and a sort of secondary small altar in the middle with a flat segment of sphere raised on top of it. The altar from which the drawing was made was partly embedded in a wall of masonry; so that the inscription on one side was completely hidden but for two letters, a Δ and a Γ at the extreme left. Dr. Littmann found other altars with inscriptions¹ upon them, one of which had been recently excavated by the natives.

¹ Div. III, sec. A, inscs. 1, 2, 12.

Preface to Division III, Section A.

The territory visited by the Princeton University Archaeological Expedition to Syria has been divided, for convenience in publication, into two main sections, A, Southern Syria, and B, Northern Syria. The epigraphical work in Southern Syria, Classical as well as Semitic, has been in my charge, whereas in Northern Syria my work was limited to Semitic epigraphy only. The Greek and Latin inscriptions studied by this expedition are to be issued in Division III of these publications, the Semitic, i. e. Nabataean, Safaitic, Syriac and Arabic, in Division IV. Of this, the third division, therefore, only Section A falls to my share. A general preface to Division III will be published when both sections are complete.

This section contains 806 inscriptions from Ammonitis and the region of the Ḥaurān, i. e. the Ḥaurān plain, the Ḥaurān mountains, the Ledjā or Trachonitis, the ruined cities and outposts south and east of the Ḥaurān mountains. The present part has been termed "Ammonitis" in keeping with the corresponding part of Division II, although it includes a few inscriptions from Djerash-Gerasa, which lies outside of that district. Furthermore, the Hebrew inscriptions from ʿArāḵ il-Emīr are published in this part, because they are too few to form a part by themselves, and because it was thought advisable to bring them out at the same time as the parallel part of the architectural division with which they are closely connected.

The following parts of this section will follow approximately the order of the route pursued by the expedition from October 13th, 1904, to March 1st, 1905, taking up the Southern Ḥaurān, then the Djebel Ḥaurān and ending with the Ledjā. The inscriptions from Bosra, Umm idj-Djimāl and Si^c will appear in special parts corresponding to those devoted to the monuments of these important sites.

It has been my aim in publishing these Greek and Latin inscriptions merely to make them accessible — in as accurate a form as I am able to give them — to those who are specialists in this field: to them I leave a more detailed discussion of the contents. In transliterating and interpreting these inscriptions I have had the assistance of my friend and fellow-traveller Professor Prentice of Princeton University and of my colleagues Professor Keil and Dr. Klotz of the University of Strassburg. Specific acknowledgment of what I owe to them is made in my notes on the inscriptions themselves.

It is to be added here that the inscriptions nos. 3 and 9 were published in the *Revue Biblique* 1905, pp. 596 sq. after the copies of Fr. M. R. Savignac et M. Abel.

Their copies, which did not come to my notice until this part was printed, differ in a few points from mine; their interpretation of n°. 9 seems to me very doubtful. Again, it should be stated that in Buckingham's copy of n°. 4 (fragment C), which I was able to compare only in the German edition of his travels, *Reisen durch Syrien und Palestina*, Weimar 1828, II, p. 65, the letter Θ is given instead of O, and that Professor Keil's emendation is thus supported by his copy, which otherwise is quite untrustworthy. N°. 5, A, was also published by Mr. Buckingham in the same place. With regard to the names *Herculeus* in n°. 1 and Ἡρακλῆς in n°. 9 I wish to refer to the remark in *Revue Biblique*, 1905, p. 597: it is not strange to find the name Ἡρακλῆς at Ḥammān, a town which is called on the coins "Philadelphia of Heracles of Coele Syria."

Strassburg i. E., May 1907.

ENNO LITTMANN.

I. AMMONITIS.

INTRODUCTORY PART.

THE HEBREW INSCRIPTIONS OF ʿARĀḲ IL-EMĪR.

ON THE LIVING ROCK, ENTRANCES TO CAVES, ABOUT 180 B. C. These two inscriptions are carved in huge, deep letters, at the right as one enters the two caves called *il-ḡāiyeh* (i. c. probably "the brown one," after the colour of the rock). These two are in the lower tier; inscription A is east of B. In the upper tier of caves there are amongst others those called *il-ḥuṣṣn*, "the fortress," (Conder N°. 5) the one containing about a hundred mangers for horses, recognized to be such even by the natives; furthermore *il-wēbdeh* (of *wabd* "hollow in a rock"), probably Conder N°. 7; *ash-sha'ārī* (Conder N°. 8), almost directly above those called *il-ḡāiyeh*, and near it *mag'ad il-bint* "the resting-place of the girl", viz. the daughter of the Emīr (see below p. 7). All these caves are described in detail by Major Conder in his *Survey of Eastern Palestine*, Vol. I, p. 68 sqq. It may suffice here to recall that *il-ḡāiyeh* A (Conder N°. 13) has a well carved entrance (cf. photograph on p. 3) which distinguishes it from the others. The interior of *il-ḡāiyeh* B, for which Major Conder (N°. 11) heard the name *il-wēbdeh*, is like the others, partly a natural cave, partly artificial, but it is treated here with special care. The back wall is highly finished and has at the height of about 5 m. a cavetto moulding, which makes the upper part of the wall protrude a little over the lower part. The ceiling is cut to form a vault. At the present time this cave like all the rest is used as a store-room for straw and grain and as a stable for cattle and donkeys. Inscription A measures 133 × 38 cm., B 124 × 39 cm.

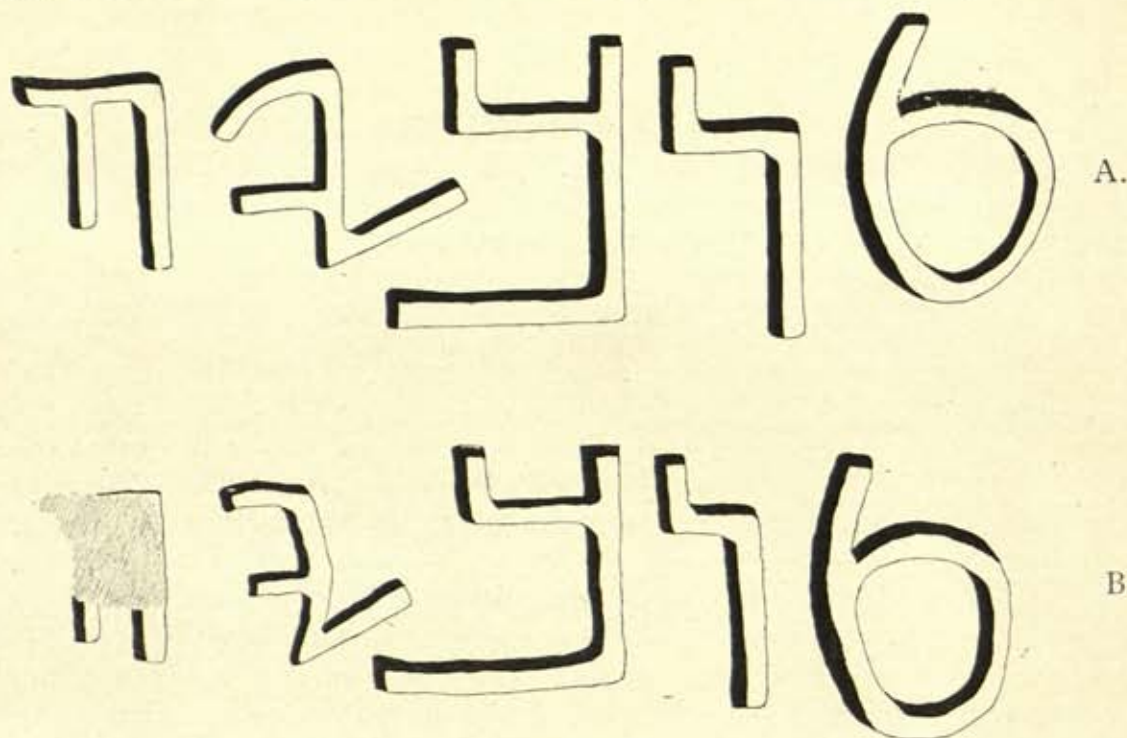
Irby and Mangles, *Travels in Egypt and Nubia, Syria and the Holy Land*, p. 146, 2nd col. — De Vogüé, *Revue Archéologique*, 1863, t. VII, p. 267; 1864, t. X, p. 60. — Id., *Temple de Jérusalem*, pp. 37 sqq. — De Saulcy, *Voyage en Terre Sainte*, Paris 1865, I, pp. 214 sqq. — Id., *Rev. Archéol.* 1865, t. XI, pp. 149 sq. — Nöldeke, *Z. D. M. G.*, t. XIX, 1865, pp. 640 sq. — De Vogüé, *Mélanges d'Archéologie Orientale*, 1868, pp. 162 sq. — Chwolson, *Corpus Inscriptionum Hebraicarum*, coll. 55—58. — C. R. Conder, *The Survey of Eastern Palestine*, Vol. I, p. 77. — S. R. Driver, *Notes on the Hebrew Text of the Books of Samuel*, pp. XXII sq. — Clermont-Ganneau, *Archaeological Researches in Palestine*, Vol. II, pp. 261 sqq. — Id., *Recueil d'Archéologie Orientale*, Vol. II, p. 205; Vol. VII, p. 217. — Lidzbarski, *Handbuch der nordsemitischen Epigraphik*, pp. 117 and 190. — Other references to descriptions of ʿArāḲ il-Emīr are given by Mr. Butler, in Div. II, pp. 1 and 25.

A }
B. } טוביה Ṭōbiyā, i.e. Tobiah.

There can be no doubt as to the true reading of these five letters which have given rise to much discussion. The reading given here has been proposed before by some scholars, chiefly by Prof. Nöldeke, M. de Vogüé and M. Clermont-Ganneau; but

it has been abandoned by others owing to the fact that the copies published were not absolutely correct: it is, however, the only reading possible.

Since this inscription is considered the oldest known in the so-called square Hebrew characters, a few words may be said about its epigraphical features. We see at once



III. 1. — Scale—1 : 10.

that the forms shown here are actually more closely related to the Aramaean of the Persian period than to the later Hebrew script. Almost every one of these five letters is found in a very similar form on the famous stele of Teimā in Arabia (*C. I. S. II*, 113).



Hebrew Inscription A.



Hebrew Inscription B.

At the same time there is a tendency toward angular forms in this inscription, a tendency which appears even more clearly in the somewhat later inscription of Gezer¹, and which gave the "square script" its peculiar character: this is illustrated by ך, ך and

¹ Clermont-Ganneau, *Archaeological Researches in Palestine II*, 225 sq.

ה. The letters ח and י, however, have a somewhat rounder form: this is especially noticeable in the case of ח. — The history of the single letters, their derivation from the old Semitic and their development into the later Hebrew is well known. Attention may be called to the following points. The letters ח and ה generally have a double form in Aramaean, an open and a closed one: in the ח the lower curve sometimes joins the shaft at the left but sometimes not; in the ה, the left perpendicular line is connected with the horizontal bar or not. Of these the open forms are the older, but they continued to be used even after the closed ones were developed: this is the case in Nabataean as well as in Hebrew. And thus it is easily explained why here in the oldest Hebrew inscription in so-called square characters ח and ה are closed, whereas in the common later alphabet they are open. The letter י here is the prototype of the ordinary Hebrew י which was directly derived from it by shortening the upper perpendicular stroke, in the same way as ח lost the two short strokes at the top. The present י is found also in Aramaean documents from Egypt, and it is only slightly different from the י of Teimā. It shows a characteristic difference from that later י which developed from the old Hebrew form and which is used on coins and in Samaritan. The latter is discussed very fully on page 185 of Lidzbarski's *Handbuch*.

In dealing with the historical problems which this short document presents to us we must try to answer two questions: 1) What was the object of these inscriptions? 2) Who was Tobiah?

The purpose of these inscriptions can scarcely have been anything else than to claim the ownership of the caves near the entrances of which they are carved for a certain person, or at least

to indicate that he was living there or had his property in them. For an ordinary graffito the letters are much too large and well carved. Similar short inscriptions are not uncommon. Thus, for instance, at Medjdel ish-Shôr near Şalkhad in the Haurân mountains we found an inscription on a lintel in situ reading only $\Sigma\acute{\epsilon}\nu\alpha\lambda(\alpha\iota)\text{ }Μ\acute{\alpha}\nu\eta$; this must mean "(This house belongs) to Shai' and Ma'n." Also on a lintel in situ, near the northern edge of the Şafā mountains, Dr. Wetzstein found the Safaitic letters לרבה בן קמ(ר) ¹



Entrance to rock-cut chamber il-gāiyeh A.

¹ Wetzstein, *Reisebericht über Hauran und die Trachonen*, p. 61. Cf. my article *Unbeachtete Şafā-Inschriften*, Mitt. u. Nachr. D.P.V., 1902, p. 20.

"(This house belongs) to Rabāḥ son of Ḳamar." Following these inscriptions we should expect to find a ל at 'Arāḳ il-Emīr and read לטוביה; but this is not absolutely necessary. On the other hand the higher grade of workmanship displayed in the two chambers called *il-ḡāiyeh* with their cut doorway and carefully executed interior indicates that Tobiah, who owned them or lived there, must have been a person of distinction.

The person of this Tobiah has been discussed repeatedly. He must have been some person of note who was connected with the history of 'Arāḳ il-Emīr, the ancient Tyros, as it is called by Josephus. It was therefore most natural to suppose that, as some at once suggested, he might be the very founder of Tyros, viz. Hyrkanos himself, and that Tobiah might be his original Hebrew name. This Hyrkanos lived in the first quarter of the second century B.C., and if we take him to be our Tobiah, the inscription, also, must date from somewhere between 200 and 175 B.C. This date seemed too late to some scholars for epigraphical reasons, and it was proposed to identify the man of this inscription with Tobiah the Ammonite, an adversary of the Jews, who lived about 450 B.C., and who is mentioned a number of times in the book of Nehemiah. Of these two opinions the former seems to me much more probable for historical reasons, all the more as the objections raised on the ground of the forms of the letters are easily met.

It is true, as we have seen above, that the letters very closely resemble those of the stele of Taimā and of the Aramaean monuments found in Egypt or coming from there, chiefly the stelae of Saḳḳārah (*C.I.S.* II, 122) and of Carpentras (*C.I.S.* II, 141). These inscriptions are generally dated from the fifth or the fourth century B.C., that of Saḳḳārah being dated 482 B.C. Now, the only really archaic character at 'Arāḳ il-Emīr is the י; but this very letter occurs in other inscriptions together with later forms. Taken as a whole, the inscription makes a somewhat later impression than those from Egypt. The letters ט and פ are found in this form much later than 180 B.C. in Nabataean inscriptions, and the ט with parts of its original top preserved is the regular form in Palmyrene script which is known to us from the end of the first century B.C. There is no cogent reason why the letters under discussion must needs be of the 5th or 4th century B.C., and there is no serious objection to their being dated in the early 2nd century. And since for other reasons, as we shall see presently, the second date is much preferable, we may learn from our important document that at that time the Aramaean script adopted by the Jews was not very different from the older forms of the 5th and 4th centuries. But a more radical change from the Aramaean to the specifically Hebrew type of script must have taken place not very long after this.

Josephus tells us that a certain Hyrkanos, son of Joseph, son of Tobiah,¹ when he left Jerusalem to found himself a tyrannis in the country east of the Jordan, erected at Tyros, a mighty building: "and in the rock of the opposite mountain, boring into its cliffs, he excavated caverns of many stadia in length; he then made chambers in it, some for feasting, others for sleeping and for the usual conveniences of living. He also brought a supply of excellent water which added much to the comfort and beauty of the residence." It lies beyond doubt that the caverns in the cliffs, mentioned above on p. 1, are the ones referred to in this passage of Josephus. An aqueduct is found near the cliff, and cisterns are to be seen near cave 7 and in cave 8, according to the

¹ About this family see Wellhausen, *Israelitische und jüdische Geschichte*, 4th ed. pp. 243 sqq.

numbering of Major Conder. The account given by Josephus is of course a little exaggerated, for neither are the caverns many stadia in length, nor are they entirely bored out of the cliff. It is much more likely and is suggested by the caves themselves, that Hyrkanos found natural caverns which he adapted to his purposes. Moreover, Professor Fraas tells me that the rock of ‘Arāk il-Emir belongs to a level which, all over Palestine, contains many caverns. Since Hyrkanos died a suicide in the year 176/175 and is said to have reigned about seven years, his activity at Tyros must have begun about 183 A.D. A more detailed description of his works and of the whole site is given by Mr. Butler in Div. II, pp. 2 sqq.

This Hyrkanos is in all likelihood the same man as the Tobiah of our inscriptions. First of all it is very natural that the man who had the caverns made or improved, i. e. Hyrkanos according to Josephus, should place his name there. Furthermore, we must take into account *a*) that Hyrkanos is a Greek name and that many Jews in those days did have both a Hebrew and a Greek name, as e. g. John Hyrkanos and Jannaios Alexander; *b*) that this Hyrkanos was the grand-son of Tobiah and therefore according to the well-known Semitic custom, is very likely to have borne the same name as his grandfather. But there is, as M. Clermont-Ganneau has shown¹, actual proof that the Hebrew name of Hyrkanos was Tobiah. For in II. Maccab. III, 11 we read of Ὑρκανοῦ τοῦ Τωβίου. This is commonly translated “Hyrkanus the son of Tobias”, and to be sure, this would be the natural translation at first sight. But with a very slight correction we gain a much better sense. Since we know that Hyrkanos was the son of Joseph, we are entitled to add a καὶ and read Ὑρκανοῦ τοῦ καὶ Τωβίου, “Hyrkanos who is also called Tobias.” With a high degree of probability we may state that Tobias Hyrkanos, the first of the various men of that family who were called Hyrkanos, was the man who founded Tyros-‘Arāk il-Emir, and who had his native name written in his native script over two of those remarkable caverns that served as his stronghold and residence.

Of the other buildings of Hyrkanos Mr. Butler has spoken at length in Div. II, pp. 2 sqq. The most interesting of all of them is the Qaşr il-‘Abd, the magnificent edifice called βύρις by Josephus and therefore commonly named “Palace of Hyrkanos.” Mr. Butler has shown incontestably that the structure in question cannot be a palace. He hesitates somewhat to assume that Hyrkanos, a Jew, built a temple outside the one abode of Jahweh at Jerusalem; still, he is inclined to consider such a thing possible. I wish to add here that I am very strongly in favor of the temple theory for various reasons. First, Hyrkanos needed a place of worship. Since he had founded an independant tyrannis of his own and, moreover, was in opposition and rebellion against the priests at Jerusalem, he could not consider the temple at Jerusalem the proper and natural temple for himself and his subjects. On the other hand, we have actual proof now that Jews living far away from Jerusalem did have temples of Jahweh. This we must conclude from the ‘Chapel of Jahweh’ at Elephantine, mentioned in the Aramaic Papyri discovered at Assuan, edited by A. H. Sayce with the assistance of A. E. Cowley, London 1906, p. 11 (Papyrus E, l. 14 and J, l. 6). Again the high-priest Onias IV. built a rival temple of Jahweh at Leontopolis in the nome of Heliopolis in Lower Egypt, about 154 B. C.; this place is now called Tell el Yehudiyeh;

¹ *Archaeological Researches in Palestine*, II, p. 262.

cf. Flinders Petrie, *Hyksos and Israelite Cities*, London 1906, pp. 19 sqq. The case of Onias would thus be very similar to that of Hyrkanos.

It is perfectly possible that Josephus, although knowing that Hyrkanos had built a temple, purposely avoided this word in order not to offend the religious feelings of the Jews of his time (or his own feelings), and not to accuse a member of the glorious Maccabaeian family of what he naturally considered a crime against the god of his fathers. Formerly it was not thought to be a crime at all, as we see from the temple at Elephantine. He, therefore, chose the ambiguous word $\beta\acute{\alpha}\tau\epsilon\iota\varsigma$ intentionally. At the same time the Aramaic word *birtā*, meaning both "palace, castle" and "temple" may have influenced his choice of this word. At all events, the $\beta\acute{\alpha}\tau\epsilon\iota\varsigma$ described by him was a temple, whether it was built by Hyrkanos for himself and his Jewish followers or for his pagan subjects, or by other men for other purposes.

THE LEGEND OF 'ARĀK IL-EMĪR.

Of the native legend connected with these ruins Capt. Conder gives the following account:¹

"A legend attaches to the great ruined Palace of Hyrcanus at 'Arāk el Emīr, and is preserved in the name applied to that palace, Kasr el Abd, 'the black slave's house'; and in the Mutull el Hisān, or 'place of the appearance of the Horse' which is a hill east of the palace. The Emīr, from whom the site in question is called 'Arāk el Emīr, or 'Prince's cliff,' had a beautiful daughter whom he left in charge of the black slave when he himself departed on a pilgrimage. The princess was loved by the slave, and during her father's absence, consented to marry him if he would first (like Aladdin) build her a beautiful palace. The black one at once began to erect the great building, with stones of enormous size, whose ruins still bear witness to his superhuman strength; but before he had finished it, the 'horse appeared', the angry Emīr was seen coming over the hill from the east on his steed; the black slave slew himself in despair, and his body was burned with fire by the Emīr, and afterwards buried beneath a stone. What became of the princess history says not."

While our expedition was at 'Arāk il-Emīr, a Beduin of the 'Abbād tribe told me this legend in his own dialect as follows:

Gusṣat (or sālṣet) al-'amīr wel-'abd. 'al-'amīr kân bal-'arâg hâne, 'ilô bint. bādên rāh iḥiḡḡ. bādên ḡā' al-'abid widdô-yâhâ gâlat 'ibnî gaṣīr gām igallî ḥiḡḡar min ḡanb al-'arâg min shimâl; isauwû bal-gaṣīr saba' snin bādên sauwâ 'alêh baḥīr maiye gawādis saḥab 'alêh bādên sauwâ nōbaṣṭiye igûlû-lô manṭara ḡāb ḥawārīs. yôm tamm al-gaṣīr ḡāb ḥaḡar al-bāb 'a-kitfō. yôm ṭall al-'amīr ṣahal iḥsânō irta'ab (?)² al-'abid. yôm ḥāf ḥaḡam al-ḥaḡar 'a-galbō, māt al-'abid. rauwah al-'amīr ind bintō ḥabbaratō bintō balli ṣār min al-'abid.

I give here a literal translation of this tale; the man who told it was not a very elegant speaker.

"The tale of the Emīr and the slave. The Emīr was living in the cliff here; he had a daughter. Then he went to make the pilgrimage. Then came the slave to covet her. She said: 'Build a palace.' He began to quarry stones out of the cliff to

¹ *Heth and Moab*, London, 1883, p. 353.

² My note-book has *irta' (ʔ)*.

the north; they worked at the palace seven years. Then he made a lake for it and drew an aqueduct to it. Then he made a watching-place which they call *manṭara*¹ and brought watchmen. When the palace was completed, he brought a stone for the door on his shoulder. [At the moment,] when the Emîr appeared, his horse hinnied, and the slave trembled(?). When he was frightened, the stone fell upon his heart; the slave died. The Emîr went to his daughter; his daughter told him what had been done by the slave."

While the slave was building the palace, the princess used to watch him from a projecting place on the cliff, the *maḡad il-bint* (see above p. 1). The stone which the slave carried und under which he is buried, lies half-way between the Kaşr il-‘Abd and the ‘Arâk or cliff: it is a large hewn block resembling those which are used in the structure of the Kaşr; cf. Div. II, A, I, pp. 5 sqq.

I was told a few other legends while at Arâk il-Emîr; these I expect to publish elsewhere.

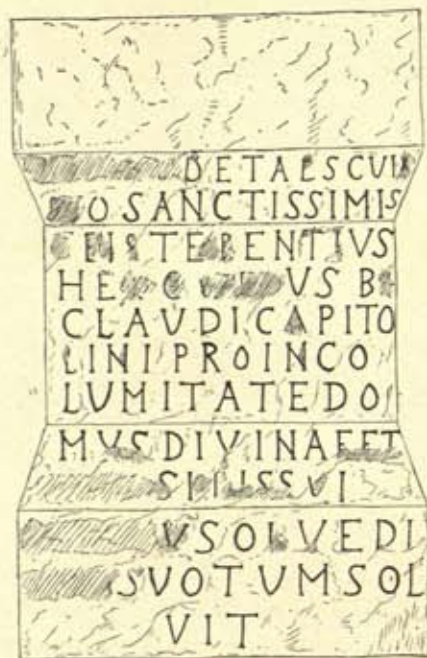
¹ I. e. "look-out, watching-place."

‘AMMÂN (PHILADELPHIA).

I.

ALTAR. On an altar, lying in the courtyard of a Circassian house near the *sêl ‘Ammân*, i.e. the stream that flows through the town: it is on the north side of the valley, in the neighborhood of the house of the *mudir*, the Turkish local governor, which is noticeable as being the largest house with red tiles. The stone was partly below the ground and, therefore, had to be excavated. Total height 86 cm.; height of die 27 cm. Width of die 47 cm.; width of base 55 cm. Thickness of die 37 cm.; thickness of base 45 cm. Height of letters 4—4½ cm. — Copy of the author.

Savignac, in *Revue Biblique*, 1905, p. 93; Cagnat, in *Année épigraphique*, 1905, n^o. 211; Jalabert, in *Mélanges de la Faculté Orientale*, Beyrouth 1906, p. 157.



III. 2. — Scale—1 : 10.

[Salut]i et Aescul[api]o sanctissimis [d]eis Terentius He[r]c[ule]us b(eneficiarius) Claudii Capitolini pro incolumitate domus divinae et [princ]i[p]is sui.
..... Solvedi[enu]s votum solvit.

To [Salus] and Aesculapius, the most holy gods, Terentius Hercules, beneficiary of Claudius Capitolinus, (vowed this altar) for the safety of the divine house and of his prince.

.... Solvedienus fulfilled the vow.

The B in l. 4 must be the abbreviation for beneficiarius, as Dr. Klotz informed me. It is, therefore, to be distinguished from the B or BB occurring frequently in Greek inscriptions of the Haurân mountains and plain.

At the end of l. 9 there is a short blank space, indicating that a break in the inscription is intended. The explanation seems to be that Terentius Hercules died, or was in some other way prevented from fulfilling his vow, and that a friend of his did it instead.

The first name of this friend has disappeared, excepting the last letter of it, which seemed to me a V. If my reading be correct, we must assume that an S was omitted by mistake, on account of the following S. However, the traces of the letter are not absolutely certain, and it may be that what I took to be a V is in reality an S. The second name Solvedienus stands for Salvidienus (Dr. Klotz). The vowels o and a interchange very frequently in Greek inscriptions from Syria, owing to the fact that in the Semitic

languages of Syria *a* often changed in the direction of *o*; cf. my *Semitic Inscriptions*, (New York 1904), p. 50. The *e* in the second syllable would indicate that the vowel *i* was, in local pronunciation — as often in Semitic — volatilized to a short indifferent *ë*, the Hebrew *shēwā*.

The reading of the word *Saluti* in l. 1 was suggested by M. Cagnat and P. Jalabert: it is very plausible and fills the lacuna very well. In l. 4 these two scholars read *Heraclitus*; but my copy rather points to *Herculeus*, the reading given above. The former publications of this inscription did not come to my notice until my manuscript was finished.

The god Aesculapius-Asklepios was at a certain period identified with the Phœnician god Eshmun, and the Egyptian Imhotep. The relation between Eshmun and Asklepios has been very thoroughly discussed by Professor Graf Baudissin in his two articles “*Der phönizische Gott Esmun*” in *Z. D. M. G.* Vol. LIX, pp. 459 sqq., and “*Esmun-Asklepios*” in *Orientalische Studien* (Nöldeke-Festschrift), pp. 729 sqq.; cf. also M. Dussaud’s review in *Journal des Savants*, 1907, pp. 36—47.

2.

ALTAR, (time of Antoninus Pius). On a broken altar, both pieces of which were found in the courtyard of a Circassian house, near the house described under n°. 1. A part of the base is below the ground and was not excavated. Maximum height of upper fragment 30 cm., of lower fragment (above ground) 40 cm. Width of top and of base 53 cm.; width of die 32½ cm. Height of letters in first line 5½ cm.; in the lower lines 3—4½ cm. In l. 5 the bottoms of the letters are not on the die, but on the beveled moulding. — Copy of the author.

Brünnow, in *Mitteil. u. Nachr. des Deutsch. Pal. Ver.* 1896, p. 4. — *Revue Biblique* 1899, p. 20. — *C.I.L., Inscr. Orientis et Illyr.*, III Supplem., p. 2302.

I(ovi) O(ptimo) M(aximo) Conservatori L(ucius) Aemilius Carus Leg(atus) Aug(usti) Prop(ri)etore.

To Jupiter Optimus Maximus, the Preserver, (this altar was dedicated by) Lucius Aemilius Carus, Legatus Augusti Proprietary.

Jupiter Conservator is mentioned several times in Latin inscriptions; he had a temple in Rome. The present altar may have been brought down from the great temple on the Akropolis, which is described by Mr. Butler in *Div. II*, pp. 38. For that temple is most likely to have been a temple of Zeus, as we shall see in n°. 4 below. In that case also Aesculapius and his associate may have found a place in the precinct of Jupiter. Moreover it is significant that a relief of Jupiter Ammon was found at ‘Ammân; see *Div. II*, Ill. 41.

The Imperial Legate L. Aemilius Carus is known from another inscription, *C. I. L.*, VI, 1333. He was, at the time of Antoninus Pius, Imperial Legate in Cappadocia, Gallia



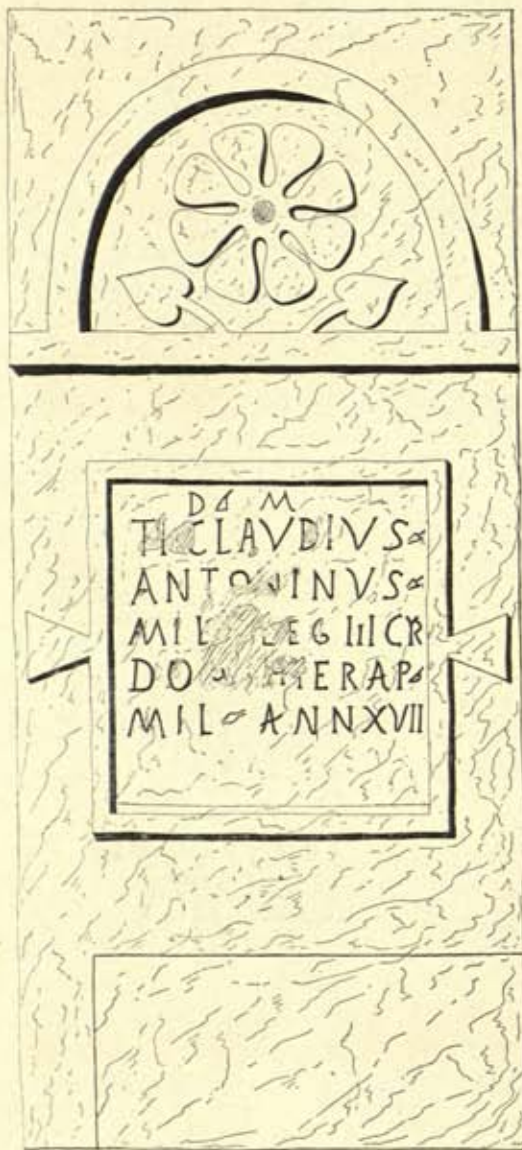
Ill. 3. — Scale—1 : 10.

Lugdunensis and Arabia: he was also Curator Viae Flaminiae, and held several other offices.

The letter A, as it is found here, without the cross-bar is quite common in Latin inscriptions of this region, especially at Bosra.

3.

STELE. On a stele, found in a field north of the main street crossing the town from east to west, near its western end. This monument had just been excavated by the natives, when it was shown to me. Total height 152 cm.; width 68 cm. The ornament at the top and the dove-tail plaque are in relief. The inscribed space inside the plaque is flush with the main part of the stele; it measures $44 \times 45\frac{1}{2}$ cm. The stele is 39 cm. thick. Height of letters in the first line 3 cm.; in the lower lines $4\frac{1}{2}$ —5 cm. — Copy and squeeze by the author.



D(is) M(anibus) T(iberius) Claudius Ant[on]inus mil[es] Le[g](ionis) III Cyr(enaicae) do[mo] Hi[erap](oli) mil(itavit) ann(is) XVII.

(Dedicated) to the dii manes. — Tiberius Claudius Antoninus, a soldier of the 3rd Cyrenaic legion, a man from Hierapolis (rests here). He served 17 years.

The Hierapolis mentioned in this inscription is probably the Syrian town of this name, north-east of Beroea-Halab (Aleppo). The original name of this town is Mabbōg or Mambōg (in Assyrian inscriptions Papāhu), which is expressed in Greek by the form Βουβώνη. The modern name is Bumbudj or Membidj. Hierapolitanus would then be synonymous with Μαββαῖος (cf. Clermont-Ganneau, *Rec. d'Arch. Or.*, vol. IV, p. 108) or Βουβωνίος (cf. Prentice, *Greek and Latin Inscriptions*, P. A. A. E. Part. III, n^o. 179).

4.

TEMPLE (OF ZEUS?) 161—169. On three fragments of the architrave of the temple on the Akropolis, a description of which is given in Div. II, pp. 38—42. Fragments A and C are partly below the surface and by excavating one end of each of them a few more letters may be gained. The

inscription is very badly weathered; the soft limestone on which it is carved seems to have disintegrated here more than usually. Fragment A is at the top 126 cm. long, C about

III. 4. — Scale—1:10.

350. All the fragments are about 100 cm. wide. The letters are huge and well carved; when they were new they must have been visible for a long distance. In the upper line the letters are 21—23 cm. high, ω is 29 cm. wide. In the lower line, which is almost entirely destroyed, the letters are 19 cm. high. Only a few letters in this line could be read, and they only with the utmost difficulty. — Copy of the author.

De Saulcy, *Voyage en Terre Sainte*, I, p. 247; Conder, *The Survey of Eastern Palestine*, p. 33.

[Υπὲρ σωτηρίας] τῶν κυρ[ίων] ἡμῶν αὐτοκρατόρων Μάρκ]ου Αὐρηλίου Ἀν[τ]ωνει[νου] καὶ Λουκίου Οὐέρου ω]ν Ῥουμεθων ἐχαρίσα[τ]ο

*For the safety of our lords
(and) emperors Marcus Aurelius
Antoninus and Lucius Verus . . . n
Rumethon donated . . .*



The readings Θ for Ο and Τ for Γ in fragment C are due to Professor Keil.



A comparison of this inscription with N°. 11 below, from Djerash-Gerasa, will show that they are most likely to be both of the same period. We should therefore restore here Λουκίου Οὐέρου, or perhaps simply Οὐέρου as in Djerash, without the first name. Both temples were probably finished in the first years of Marcus Aurelius.



Ill. 5. — Scale—1:40.

With regard to the name Ῥουμεθων, Professor Keil refers me to the feminine name Ῥουμαθα in C. I. G. 6912. This Ῥουμαθα came from Antioch (Ῥουμαθα Μενίππου Ἀντιόχισσα), and it is natural that we should look for a Semitic prototype of this name. Ῥουμαθα may be the Aramaic form of the Hebrew Reumah (Rə'ūmā), the name of a concubine of Nahor, Gen. XXII, 24. The explanation of the form Ῥουμεθων, however meets with certain difficulties. The vowel ε instead of α is easily explained (cf. above p. 9); but the ending is unusual since the Syriac diminutive ending -dn is in Greek ordinarily rendered by -ώνης. Moreover, we would not expect -dn after the feminine -at, unless we assume that -at is here the hypocoristic affix found elsewhere in Semitic¹ and that atōn (here -εθων) might be a double diminutive as in Babylonian -atiya and ayatum². This is, however, quite uncertain.

The more important question is this: to whom was the great temple dedicated? The temple at Djerash, which corresponds to the one under discussion, was probably a temple of Zeus, as Dr. Lucas suggested in his publication of the Djerash inscriptions³. Furthermore, we know from inscr. n°. 2 above that an altar at ‘Ammân was dedicated to Jupiter Conservator. It would then be a very plausible conclusion that this temple also, on the Akropolis of ‘Ammân, was dedicated to Jupiter-Zeus.

¹ Lidzbarski, *Ephemeris für semit. Epigraphik*, II, p. 19; Ranke, *Early Babylonian Personal Names*, p. 14.

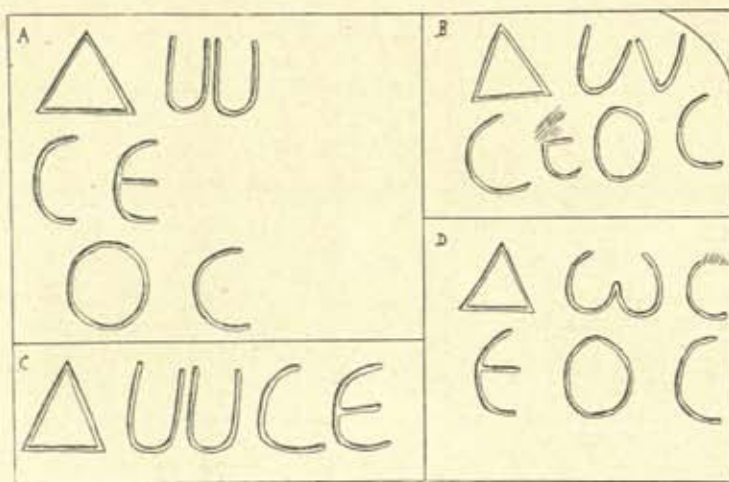
² Ranke, *l. c.*, pp. 17 sq.

³ *Mitteil. u. Nachr. des Deutsch. Paläst. Ver.* 1901, p. 58.

5.

ON THE DRUMS OF COLUMNS OF THE TEMPLE ON THE AKROPOLIS. The letters were carved on the tops of these drums and therefore not visible when the columns were standing in their entirety. A is on the fourth, B on the fifth drum of the fallen high column, the drums of which lie now as they fell. C is on a drum which has been taken down from the temple and forms now part of a wall; D is on a drum lying near C, to the north of it. A measures 41×34 (maximum width, l. 1) cm.; B is 30 cm. wide (lower line); C is 51 cm. long; D measures 23×37 (maximum width l. 1) cm. The letters are 10—12 cm. high. — Copy of the author.

De Saulcy, *Voyage en Terre Sainte*, I, p. 246. — Conder, *The Survey of Eastern Palestine*, pp. 31, sq.



III. 6. — Scale—1 : 10.

The name $\Delta\omega\sigma\epsilon\varsigma$ is an abbreviation of $\Delta\omega\sigma\epsilon\iota\varsigma$, just as, for instance, Nathan for Nathanael, and the like, and in Arabic Wahb for Wahballāh or Wahb'el. Whether in C a shorter form $\Delta\omega\sigma\epsilon$ was intended, is not certain. There never were any other letters but $\Delta\omega\sigma\epsilon$ on this drum. Either the name was not completed, or $\Delta\omega\sigma\epsilon$ was the hypocoristic form by which the man usually was called. Deminutives ending in $-\epsilon$ were common in Aramaic dialects, and so they are now in Abyssinia; on the other

hand, Greek names are very often used in Syriac in their vocative form, cf. Paule, Petre etc., the forms which were most frequently heard.

Dōse(os) may have been the name of the man who cut or furnished these column-drums. It was more convenient for settling the accounts to have these drums labelled, but of course it would have been very ugly if the letters had shown on the outside of columns. For a similar purpose usually stone-cutters' marks, consisting of a letter or a symbol, were carved on the stones in some inconspicuous place and not so deeply as the letters on these drums. On the other hand, there may have been, as Dr. Prentice suggests, a religious reason for carving the name here. When the column was in place, the name was incorporated in the column. The donor or the carver may have thought to derive a certain benefit from that: for "his name," i. e. according to a well known superstition "his being," was in the temple building, and the god would know of it.

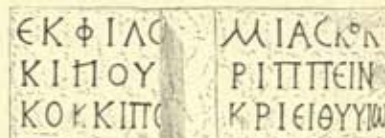
6.

FRAGMENT, NOT IN SITU. On a stone in the back wall of a native house. This house is a few minutes walk from the mosque. Leaving the mosque, you turn to the right, then to left and again to the right. I had to copy this inscription lying on the ground, among heaps of various description; the light came in through a small door

ordinarily filled with natives, who were constantly driven away and returned immediately. The lower part of the stone is in the ground, here the floor of the house, which could not be removed; in the centre the stone has a perpendicular hole cut like a half-cylinder. Hight of stone above ground 23 cm.; total length 50 cm. Hight of letters $3\frac{1}{2}$ cm. — Copy of the author.

Ἐκ φιλο[υμ]ίας Κοκκίπου [Ἀγ]ριππίν[α] Κοκκίπου Ἰ(ησο)υ̅ (Χ)ριστῷ̅ Θ(εο)υ̅ υἱῷ̅ . . .

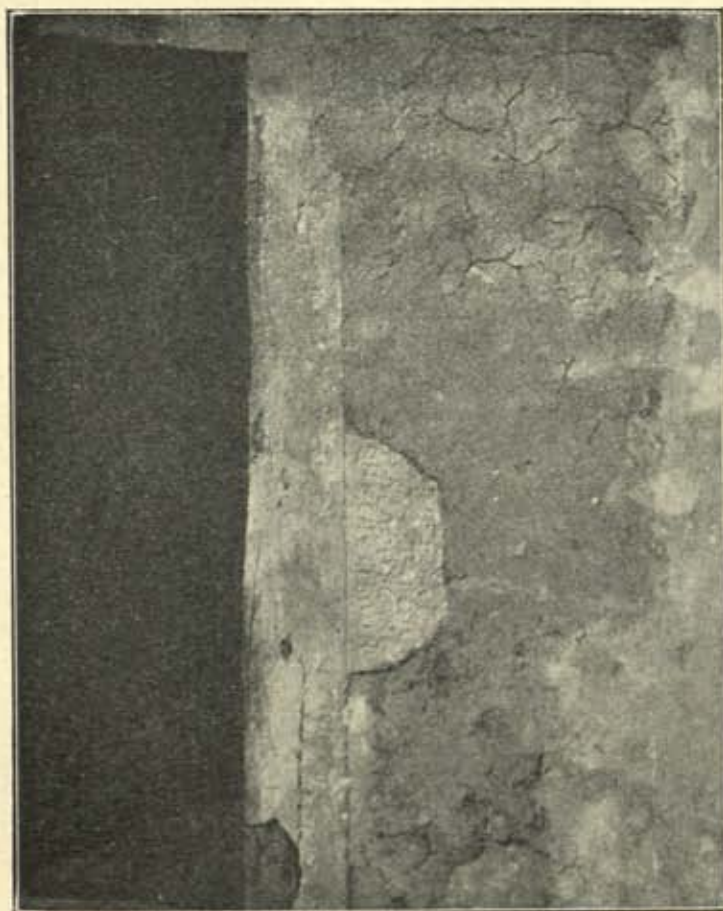
Through the generosity of Kokkipos, Agrippina the daughter of Kokkipos (has dedicated) to Jesus Christ, the son of God . . .



III. 7. — Scale—1 : 10.

The reading Ἰ(ησο)υ̅ Χριστῷ̅ was suggested by Prof. Keil who also assisted me in the interpretation of the whole document.

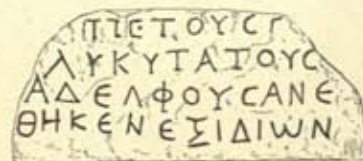
The name Κόκκίπος is very unusual. It would be natural to think of Cocceius, but such a reading is forbidden by the letters on the stone. We must rather consider it a Semitic name. In Arabic *kur-kuf* or *kurkub* means "small bird," and this would be a very suitable meaning for a personal name. A number of names with similar meanings are given by Professor Nöldeke in his *Beiträge zur semitischen Sprachwissenschaft*, p. 85, where he also compares the Greek names Στρούθος and Πίπος.



Jamb-stone at ‘Ammân, showing inscr. 7.

7.

SARCOPHAGUS (?) On a roughly cut stone, now serving as a jamb-stone of a stable-door, south



III. 8. — Scale—1 : 10.

of the stream (*sêl ‘Ammân*), near the west end of the town. At the lower end the stone has a protruding horn like those of sar-

cophagus covers; the upper end is cut away. The inscription is on an irregularly cut protuberant plate resembling one end of the middle band sometimes found crossing a sarcophagus cover from one side to the other. The back of the stone, turned

toward the stable, is broken and allows of no conclusion as to its original shape. Since the inscription is incomplete, the beginning of it may have been either on the main part of the cover or on the left horn. The stone is now 200 cm. long, 28 cm. wide and 68 cm. thick. The inscribed plate has a maximum width of 50 cm. and height of 20 cm. — Copy of the author.

[Ο δεῖνα] πιστοῦς γλυκυτάτους ἀδελφοὺς ἀνέθηκεν ἐξ ἰδίων.

N.N. . . set up (this) to (his) faithful, most beloved brothers at his own expense.

8.

FRAGMENT. On a curved stone lying in the theatre, which is discussed in Div. II, pp. 47 sqq. The inscription is on a flat band below an egg and dart moulding. The whole stone is 210 cm. long and 65 cm. high: the band is 10 cm. high, the inscription preserved only to a length of 65 cm. The letters are $7\frac{1}{2}$ —9 cm. high, O is $8\frac{1}{2}$ cm. wide. — Copy of the author.

[ἐκ τοῦ] δημοσίου] or [ἐκ τῶν] δημοσίων].

I publish this fragment with the hope that other fragments of this handsomely carved inscription may be found.

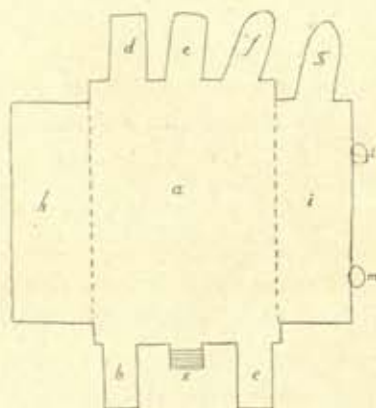
ΚΗΜΟCΙΟ

Ill. 9. — Scale—1 : 10.

as Mr. Butler tells me, the architrave, i.e. the lowest member of an entablature, that was carved across the front of the stage and followed its curves. It seems to result from this fragment, that the theatre was built by authority of the community or rather from public funds.

9.

ROCK-CUT TOMB NEAR KHIRBIT İT-ṬİN. On an incised plaque over the entrance to a rock-cut tomb. About 50 minutes on horse-back west of 'Ammân there is a small ruin called by the natives Khirbit İt-ṬİN, because they fetch *ṭin* (clay) from that place. Near the ruin, to the south of it, there are ten tombs cut into a low cliff facing a wadi, the western continuation of the Sêl 'Ammân. The fourth of these tombs, counting from the west, bears a short inscription. This tomb may be described as follows (see Ill. 10). The entrance is formed by a small ante-room, from which a few steps (*k*) lead to a small door. Through this one enters into the main chamber (*a*), which is five paces wide and seven paces long. On the north and south sides there are five loculi (*b*, *c*, *d*, *e*, *f*), resembling the stulms or loculi of the Hebrew tombs. On the west and east sides there are larger loculi (*h* and *i*), elevated, and resembling arcosolia; from *i* another small locus (*g*) branches off to the north. In the east wall there



Ill. 10.

are two small holes (*l* and *m*) leading into the next tomb, the fifth from the west. In this there are twelve loculi, counting stulms and arcorsolia together. — With these tombs those described by Major Conder, *Survey* pp. 26 sqq., may be compared. — Copy of the author.

Λυσᾶς Ἡρακλῆ. *Lysas, son of Heraklas.*

Both names are Greek, but in a somewhat unusual form, which may be only local. Lysas was probably the head of the family who had this tomb made for himself and his relatives.



III. 11. — Scale—1 : 10.

ḲAL'AT IZ-ZERḲĀ.

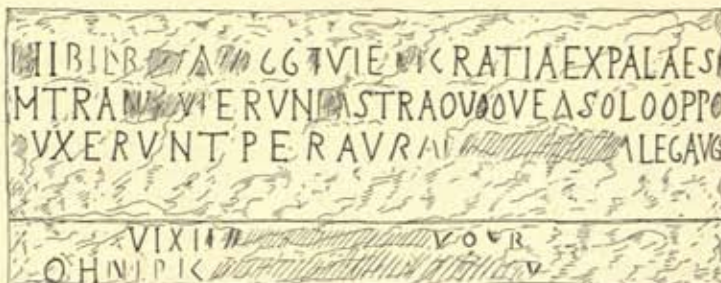
FRAGMENT IN A WALL. Ḳal'at iz-Zerḳā is a fortified khān standing on a small isolated hill and visible for a long distance, about 20 kilometers north-east of 'Am-mān. It is situated on the border of the desert, but the Nahr iz-Zerḳā, the Jabbok of the Old Testament, flows near by and provides a sufficient water supply, all the year round. The *darb il-hadjj*, or Pilgrims' Road, passes near here, and the castle has served many centuries as a station for the pious Mohammedans making their pilgrimage to Mekkah. Such fortified khāns are found all along this road a day's journey distant from one another. Wherever there is no running water, cisterns or reservoirs are made within the walls of the castle. Formerly certain Beduin tribes were the "guards" of these places (*hārīs*); Ḳal'at iz-Zerḳā, for instance, was "guarded" by the Beni Ḥasan. The Mekkah railroad, which is at present being built by the Ottoman Government, has of course caused a change in these conditions. It has, therefore, been possible for certain Mohammedans from the Caucasus to settle here protected by the Government and push the border of the cultivated land farther to the East. It is known that the Circassians have settled at a number of places east of the Jordan (il-Ḳunêṭrah, Djerash, 'Ammān, Khirbit Ḥadīd, Wādī iṣ-Ṣīr, Nā'ūr). At Ḳal'at iz-Zerḳā other families of the Russian Caucasus have settled, who call their home Daghistān and themselves Tchöтчүн: they belong, therefore, to the Tchetchentzes, a Caucasian tribe. A family of these people are now the guardians of the castle. This must have been rebuilt several times, and the original plan is no longer recognizable. It has now two courts, arched stables and a structure of several stories with a tower. Over the entrance to this structure there is a late Arabic inscription, much weathered and very fragmentary, and too high to be read without the aid of a telescope. In the tower itself, over the highest door, which opens on the roof, there is the Latin fragment published herewith. It is evidently broken at both ends and the letters are much damaged. Copying was rather difficult on account of the bad light, and the biting smoke which was coming up the stairway and irritated my eyes. Under more favourable circumstances more letters might be read from the stone. The fragment is 96 cm. long and 37 cm. high. Height of letters 4—4½ cm. — Copy of the author.

P. Savignac, in *Revue Biblique* 1905, p. 94. — Brünnow, *Provincia Arabia*, II, p. 336. — Clermont-Ganneau, *Recueil d'Archéologie Orientale*, VII, p. 205.

.... Domini nostri] Aug(usti) tu[t]e[lae] gratia ex Palaest[ina]... in provinciam Arabia]m(?) tran[st]ulerun[t] c]astra quoque a solo oppo[.....] exstr]uxerunt per Aur(e-
lium) Ae[lium] Theone]m(?) leg(atum) Aug(usti).

Vixit a[n]nis].....

M. Clermont-Ganneau was the first to recognize the contents of this inscription and its importance for the history of the province of Arabia. Professor Brünnow supplied the name of the Imperial legate. The lacuna would be a little too small for the reading of the entire name, according to my copy; but since two of the letters to be supplied are very narrow (L, I), the above restoration is not impossible. Aurelius Theo was governor of Arabia under Valerianus and Gallienus (between 253 and 268 A.D.).



III. 12. — Scale—1:10.

We learn from this fragment that certain troops were transferred from Palestine to Arabia and that *castra* were erected or rebuilt. This would refer to the *limes* which has been carefully studied by Professor Brünnow. Moreover we see that, as in several other cases, an old Roman camp has been utilized by the Mohammedans for similar purposes. At Dêr il-Kahf,¹ for instance, exactly the same thing has happened, and it is probable that a series of frontier forts existed under the Arab rulers also.

The last two lines of this inscription are very doubtful; but at the same time they give rise to a new problem. If the inscription was an architectural one, it is very unusual to find here the word *vixit*, which reminds us at once of funerary inscriptions. Possibly Aurelius Theo died soon after the completion of his work at Ka'at iz-Zerka, and a short note about his life may have been added to the inscription. In that case the last two lines would be a memorial rather than a funerary inscription.

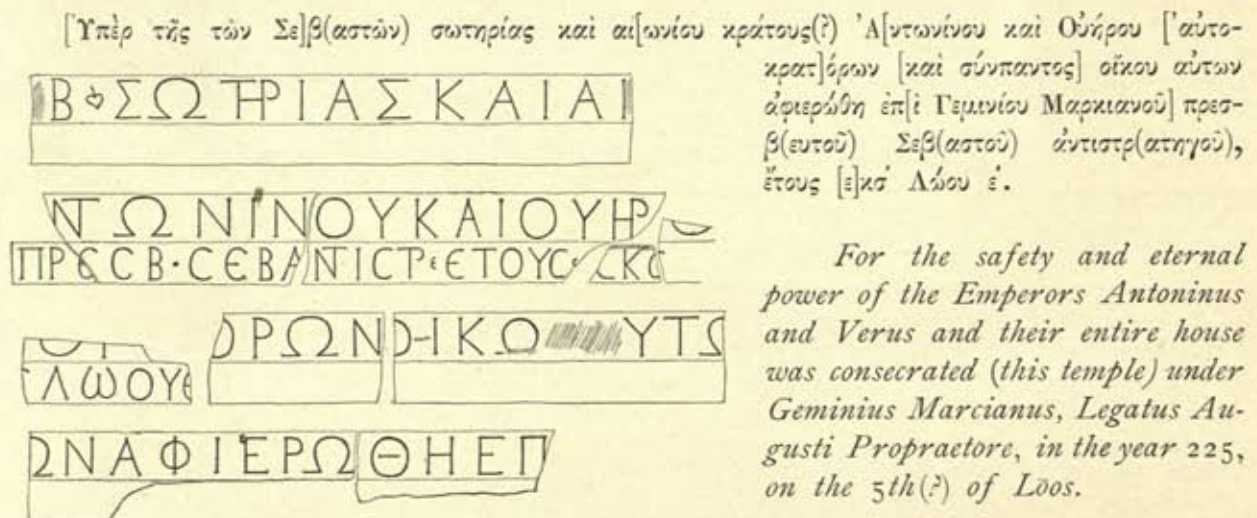
¹ To be published in Part II of Div. II and III of these Publications.

DJERASH (GERASA).

11.

TEMPLE (OF ZEUS?), 162. On ten fragments of the epistyle of the south temple, which probably was dedicated to Zeus. Inasmuch as this temple is to be published in full by Professor Puchstein, and as the text of this inscription has been published already, I give here only my drawings with the restoration of the text as proposed by Professor Puchstein and Dr. Lucas. The drawings may serve to illustrate the character of the script, and to furnish material for a comparison with n°. 4 above. Professor Puchstein found one more fragment and saw several more letters than I myself. It appears also that since his visit to Djerash the fragments have been still further broken. The letters in the upper line are 22 cm. high, in the lower line 18 cm.; the letter Ω is, at the bottom, 27—30 cm. wide. The lower fasciae of fragments 1 and 7, 8, 9, 10 as given below, were never inscribed.

Lucas in *Mitteil. und Nachr. des Deutsch. Paläst. Ver.* 1901, p. 58. The earlier publications, which are very incomplete, are mentioned by Dr. Lucas.



Ill. 13. — Scale—1 : 40.

Of my other copies of Greek inscriptions found at Djerash I publish herewith only those not found in Dr. Lucas' *Repertorium der griechischen Inschriften aus Gerasa*. These are the following nos. 12—16.

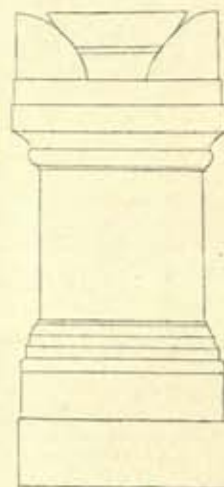
12.

TOMB-ALTAR. On three sides of the die of an altar lying in a ploughed field, about a quarter of an hour's ride on horse-back to the north-west of the north temple or "Temple of Artemis." There are signs of tombs and remains of sarcophagi near by. The original inscription covered three sides of the altar. The first of them, on which

the stone was lying, could not be copied without rolling the altar over, and for this I did not have the means; the second and third sides were uncovered, the fourth was blank. The beginning of this inscription is therefore missing here. The altar is 127 cm. high, the die is 44 cm. wide and 40 cm. high; other proportions and measurements are shown in the drawing (Ill. 14). The letters are very well cut and clear; when I saw them they looked as fresh as if they had just come from the stone-cutter's shop. Height of letters 7 cm. — Copy of the author.

... ἔνατος (θ') δὲ μοι ἤλυθε μήν
πρὸς δυοῖν ἐτίειν ὅτ' ἄρτι με Κλαυδιανός
εἶδε πατήρ (σ)τυγερὴν γαῖαν ἐφ' ἐσσύμενον.

*But just when the ninth month came to me, after two years,
(my) father, Klaudianos, saw me embarked for the hateful land.*



Ill. 14. — Scale—1 : 20.

In the interpretation of the first part of this inscription I had the assistance of Professor Keil. He also remarked that half-metrical prose occurs quite frequently in later funerary inscriptions.

Real tomb-altars, like the present, are rather rare in Syria, as far as I have been able to observe. The vast majority of funerary inscriptions in southern Syria are on stelae owing to the Arabic influence; whereas in the north the stele is rare, and the inscriptions are placed on sarcophagi, lintels, columnar monuments or entrances to rock-cut tombs.

13.

GRAFFITO. On the southern parotid of the Great Temple (Temple of Artemis), inside, near the front columns. Length 5 cm. Height of letters $2\frac{1}{2}$ cm. — Copy of the author.

ΔΙΗ

Δίη. *Dî.*

Ill. 16. Scale—1 : $2\frac{1}{2}$.

14.

GRAFFITO. In the same temple as n^o. 13, on the third column of the front counting from the south, on the inner (w.) side of the column. Scratched in very shallow letters. — Copy of the author.

ΘΔΕΜΟΙΗΛΥ
ΘΕΜΝΡΟΔΥ
ΟΙΝΕΤΕΟΙΝ
ΟΤΑΡΤΙΜΕ

ΚΛΑΥΔΙΑΝΟΣ
ΔΕΠΑΤΗΡΓΤΥ
ΓΕΡΗΝΑΙΑΝ
ΕΦΕΣΣΑΜΕΝ

Ill. 15. — Scale—1 : 10.

Ἐμμεγίνης. *Emmegenes.*

This name should not be considered apart from Ἐμμεγίνη Wadd. 2167, 2189, 2286 and Ἐμ[με]γάνης, cf. Lidzbarski, *Ephemeris* I, p. 334, 86. Dr. Wetzstein derived the name Ἐμμεγίνη from the Arabic word *mihgan* "crooked staff," and thought the Greek form might render an Arabic *mihgāna* with a prosthetic vowel. But this seems

to me somewhat uncertain, since the double μ is not explained in this way. Perhaps the name is Greek after all. For if we assume that the first μ is nothing but an

ΕΜΙΜΕΓΕΝΗΕ

Ill. 17. — Scale—1 : 2 1/2.

assimilated ρ — rm and mm interchange in Semitic languages —, we would have here *Ερμεγενης*; and this is not very far from *Ερμεγενης*. The other two forms, however, are somewhat more difficult to explain.

15.

GRAFFITO. On an altar, near the Propylaea, a little to the west, behind the north end of them. The main inscription was copied by Prof. Puchstein and published by Dr. Lucas as n°. 3 of his *Repertorium*. This graffito is on the base, on the right hand side. The letters are very shallow and carelessly scratched; there is no comparison between them and those of the main inscription. Length of graffito: 19 1/2 cm. Height of letters: 2 cm. — Copy of the author.

Ἡλιος σῶζε. *May Helios help!*

It is interesting to find this graffito with the name of Helios on an altar dedicated to Artemis near the temple which often has been called the Temple of Helios, but

ΗΛΙΟΣ ΕΩΖΑ

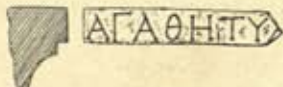
Ill. 18. — Scale—1 : 2 1/2.

which is more likely to be a Temple of Artemis. According to Gesenius, Germer-Durand, Puchstein, and Lucas¹ the north temple of Djerash is an Artemis temple, since the coins from there bear the legend

Ἀρτεμις τύχη Γερασέων, and since this very altar is dedicated to that goddess, whereas no epigraphical proof has been found that Helios was worshipped in this temple. I have no doubt that the opinion of these scholars is the correct one. In that case we must assume that a worshipper of Helios scratched this graffito on an altar where it did not belong. But it is of course not impossible that Helios was worshipped even in a Temple of Artemis.

16.

FRAGMENT. On a small fragment which may have been originally part of the top of an altar. The inscription is on a narrow band, over a cavetto moulding and a fillet.



Ill. 19. — Scale—1 : 10.

This fragment is deposited in the Art Museum of Princeton University. It was found near the Propylaea. — Copy of the author.

Ἀγαθὴ τύχη. *To Good Luck!*

This may be the beginning of one of the altar inscriptions published by Dr. Lucas (nos. 1 sqq.), where these very words are missing.

¹ Cf. Lucas, *l.c.* p. 51.



ERRATA

DIVISION II.

Page	1	line	10	re	6	for	18	5.
"	25	"	8	"	at	er	rater.	
"	25	"					af.	
"	49	"					parados.	
"	52	"					"	"
"	53	"					"	"

DIVISION III.

Page	4	line	4	read	doorways	for	doorway.	
"	4	"	4	"	interiors	"	interior.	
"	7	"	9	"	and	"	und.	
"	14	"	21	"	carried	"	carved.	
"	19	last line	"		vowel	"	vowal.	

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